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GAZETTEER OF INDIA

KERALA

ERNAKULAM

KERALA DISTRICT GAZETTEERS

ERNAKULAM

By

A. SREEDHARA MENON, M. A., A. M. (Harvard)

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Trivandrum.

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PREFACE

The Imperial Gazetteer of India (1908), the District Gazetteers and the State Manuals published several decades ago have become obsolete and out-of-date. The work of revising and rewriting them is, therefore, being taken up and implemented as a national project by the Government of India, the State Governments and the Administrations of the Union Territories. Under this project the Imperial Gazetteer of India is being revised and published in four volumes under the title "Gazetteer of India: Indian Union", and new District Gazetteers are being compiled for about 335 Districts in the country.

The scheme of contents of the District Gazetteers and the organisational set-up for the implementation of the project have been drawn up by the Government of India in order to exercise unified central direction and control over the project. In July 1958, at the instance of the Governmen of India, the Government of Kerala in the Education Department approved of the scheme for the compilation of Gazetteers for all the nine Districts of the State and appointed me as the State Editor in charge of the scheme. In February 1959 an Advisory Board for the Kerala Gazetteers was constituted with the Minister for Education as ex-officio Chairman and the following as members:

1 Dr. A. Abraham, M.Sc., Ph.D., Professor of Botany, University of Kerala, Trivandrum
2 The late Sri Komattil Achutha Menon, B.A., B.L., Advocate, Trichur
3 Sri K. C. Cherian, M.A., Department of Statistics, Trivandrum
4 The late Sri Mayyanad K. Damodaran, B.A., Retired Translator to Government, Trivandrum
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8 Sri Elamkulam P. N. Kunjan Pillai, M.A., Retired Professor, University College, Trivandrum

9 Sri Sooranad P. N. Kunjan Pillai, M.A., Editor, Malayalam Lexicon Trivandrum

10 Sri K. S. Lakshmana Panikkar, M.A., M. Litt., Professor of Economics, University College, Trivandrum

11 Sri K. C. Peter, M.A., LL.B., Professor of Economics and History, Mar Athnasius College, Kothamangalam

12 Sri P. S. Raghavan, M.A., Principal, Government Victoria College, Palghat

13 Sri Syed Mohideen Shah, M.A., L.T., Principal, Thangal Kunju Musaliar College, Quilon

14 Dr. V. K. Sukumaran Nair, M.A., Ph.D., Professor of Politics, University of Kerala, Trivandrum

15 One representative of the Kerala Sahitya Akademi, Trichur*

16 Editor, District Gazetteers, New Delhi or his nominee

17 State Editor, Kerala Gazetteers (Convener)

The Ernakulam District Gazetteer is the fifth in the series of Kerala District Gazetteers to be compiled and published, the earlier ones being those of Trivandrum, Trichur, Kozhikode and Quilon. The scheme of contents of this volume adheres to the pattern laid down by the Central Gazetteers Unit in the Union Ministry of Education, New Delhi. The draft of the Ernakulam District Gazetteer was ready in August 1964 and it received the approval of the Government of India for publication in February 1965. With some changes effected in the original draft in the light of the suggestions made by the Editor, District Gazetteers, New Delhi, the volume was sent to the press in March. But, owing to the delay in procuring paper of superior quality for printing this and the remaining volumes in the series as per an earlier decision of the Advisory Board, the work of printing could not be taken up till July 1965. The draft has undergone some changes even in the course of printing as it was considered desirable to incorporate some of the latest information and data received since the volume

* Sri P. K. Sivasankara Pillai, Assistant Secretary, Kerala Sahitya Akademi, represents that organisation on the Board.

was sent to the press. The Census data of 1961 have been incorporated in this volume. A Bibliography, a Glossary an Index and two maps have been included in conformity with the all-India pattern in order to make the publication useful to the general reader.

As in the District Gazetteers published earlier in the current series, the Chapter on History has been given special attention in this volume also and I have personally attended to its compilation. An earnest attempt has been made to sketch the history of the Ernakulam District in the general background of the history of Kerala, the broad outlines of which are discernible in the District Gazetteers already published. But the Chapter on History in this volume is intended primarily as a supplement to the historical portion of the *Trichur District Gazetteer*. In the compilation of this Chapter, I have relied considerably on the *Cochin State Manual* by C. Achutha Menon, the old and revised editions of the *Travancore State Manual* by V. Nagam Aiya and T. K. Velu Pillai and the works of Sardar K. M. Panikkar. I must also acknowledge, in this connection, my indebtedness to individual scholars like Prof. L. M. Pylee, Sri N. Purushothama Mallayya, etc. for having supplied much useful material for this Chapter and also for the succeeding one on People.

I would like to place on record my sincere thanks to all those individuals and agencies who co-operated with me in my work. Some of the sections of Chapter I have been contributed by specialists in the field or by concerned Departments of the Government of India. The account on Flora was supplied by Dr. A. Abraham, Professor of Botany, University of Kerala, Trivandrum and Sri M. K. Prasad, Lecturer in Botany, Maharaja's College, Ernakulam and that on Fauna by Dr. A. P. Mathew, Retired Professor of Zoology, University College, Trivandrum. The section on Geography was compiled with the help of Sri S. Muthukrishna Karayalar, Retired Professor of Geography,

Training College, Trivandrum. The materials for the sections on Geology and Climate were supplied by the Geological Survey of India, Calcutta and the Meteorological Department of India, Poona, respectively.

I must express my sincere thanks to the members of the Advisory Board for the Kerala Gazetteers who scrutinised various chapters or portions of this volume and helped me with their valuable suggestions. I am also indebted to Sri P. D. Nair, Retired Director of Agriculture, Trivandrum, Sri C. P. Gopala Panikkar, Retired Land Commissioner, Trivandrum and Dr. N. Krishnan Thampi, Retired Director of Public Health, Trivandrum, who perused the chapters on "Agriculture and Irrigation", "General Administration" and "Revenue Administration" and "Medical and Public Health Services" respectively and offered helpful suggestions. I must also express my thanks to Sri N. Gopalakrishnan Nair of the Indian Administrative Service for having furnished a useful note on the role and functions of the District Collector in connection with the compilation of the Chapter on General Administration. Sri K. Ramunni Menon, I. A. S., District Collector, Ernakulam, who perused the draft of this volume and offered useful suggestions also deserves my thanks. My thanks are further due to the Department of Statistics and Economics which furnished some of the tables included in this volume and also to the Department of Survey and Land Records, Kerala State, which prepared and printed the two maps included herein.

I have included in this volume several representative illustrations with a view to making the publication sufficiently attractive to the general reader. Several individuals and institutions have helped me with the necessary photographs and blocks. In this connection, I must express my thanks specially to the Archbishop of Ernakulam for the photographs of the St. Mary's Cathedral and the Syrian Christian Bride, the Archbishop of Verapoly for the blocks of the

Perumanur and Chathiath Churches, the Archaeological Survey of India for the photograph of the mural painting on Siva and Vishnu Maya, the Director of Archaeology, Kerala State, for the photographs of the Annamalai Temple, Karikode and the Pallippuram Fort, Sri N. Purushothama Mallayya, Cochin for the photographs of the Thirumala Devaswom and Jain Temples, Cochin and the Agricultural Information Officer, Trivandrum, for the blocks of Nutmeg and Sarpagandhi. Most of the other photographs were either supplied by the respective departments and institutions or obtained from the Government Presses, Trivandrum and Ernakulam.

I must also express my thanks to the staff of the District Gazetteers Department who worked as a team and rendered my task less difficult. Sri K. K. Ramachandran Nair, the Research Assistant, who helped me a great deal in collecting material for the various chapters and in giving shape to this volume, deserves special mention. I must also record my appreciation of the services rendered by Sri N. Raghavan, Steno-Typist, who was closely associated with me in all stages of the work connected with the compilation and printing of this volume. Sri P. Balakrishnan Nair, Head Typist, Sri P. Thomas, Sri M. Abdul Rahiman, Smt. P. Sulochana Bai and Smt. S. Radhamma, Typists, Sri P. S. Raja Raja Varma, Clerk and Sarvasree K. Janardhanan and M. Kochahammad Pillai, Peons, have also co-operated with me in all stages of the work and I must record my sincere appreciation of the services rendered by them too.

I will be failing in my duty, if I do not express my thanks to Dr. P. N. Chopra, M. A., Ph. D., Editor, District Gazetteers and the staff of the Central Gazetteers Unit, Union Ministry of Education, New Delhi, for their effective role in planning and co-ordinating the work of preparation of the District Gazetteers. The Unit scrutinised the draft of this volume with great care and made several helpful suggestions with a view to improving the standard and

quality of the publication. It may also be mentioned here that a portion of the expenditure incurred on the compilation and printing of the District Gazetteers is being met by the Government of India.

Above all, I should express my sincere thanks to Sri K. Swaminathan, Superintendent, Government Presses, and the concerned staff of the Government Press, Trivandrum, for the keen interest they took in printing this volume and seeing it through the press expeditiously.

Trivandrum,
September 30, 1965.

A. SREEDHARA MENON.

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ERNAKULAM DISTRICT GAZETTEER

CHAPTER I

GENERAL

Origin of the Name of the District

The Ernakulam District derives its name from the location of its headquarters in Ernakulam town. The story of the origin of the name Ernakulam is connected with the popular story of the origin of the Siva Temple situated in the heart of the town. According to popular tradition current in the place Devalan, the senior disciple of one Kulu Muni, became a serpent-man and developed serpent's hoods on his head under the curse of his *Guru*. The Nagarshi, as Devalan came to be called, attained *Moksha* by worshipping Siva Linga and propitiating Lord Siva. The tank in which he attained salvation came to be called *Rishinagakulam* (Tank of Rishinaga) and the deity presiding over the place *Rishinagakulathappan*. The town which grew around the spot also came to be known as *Rishinagakulam* after the names of the temple and the tank.[1] The popular belief is that the name Ernakulam is a corrupt and distorted version of the word "*Rishinagakulam*". This derivation, however, defies the rules of phonology. It seems more probable that the name Ernakulam is derived from the words *Irainar Kalam* (Place of Lord Siva). The place was also known as "*Panchabjapuram*" (City of Five Lotus Flowers) as may be seen from the inscriptions on the *Deepastambhom* (Lamp post) and on certain metal vessels of the Ernakulam Thirumala Devaswom temple. The deity of the latter temple is invoked as *Panchabjapuradhiswara* (Lord of Panchabjapura) by the priests at the end of their daily *archanas*.

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1. The detailed story of the origin and history of the Siva temple at Ernakulam can be had from the booklet "*The History and Origin of the Siva Temple at Ernakulam*" (1963) by C. Sankara Menon.

Location, General Boundaries, Area and Population

The Ernakulam District is located between latitudes 9° 42′ 30″ and 10° 18′ 00″ N and longitudes 76° 9′ 30″ and 77° 2′ 00″ E. The District is bounded by the Trichur District on the north, the Kottayam District on the east, the Alleppey and Kottayam Districts on the south and the Arabian Sea on the west. At its longest point it extends 49 miles from east to west and 33 miles from north to south. The total area of the District is 1,289.5 sq. miles,[1] and in this regard Ernakulam occupies the sixth rank among the Districts of the State. The area of each Taluk, (total, rural and urban) is given below.

Distribution of area by taluks

Taluk	Total (Sq. miles)	Rural (Sq. miles)	Urban (Sq. miles)
Ernakulam District	**1,289.5**	**1,236.0**	**53.5**
Parur	74.0	70.7	3.3
Alwaye	126.0	123.2	2.8
Kunnathunad	261.7	257.3	4.4
Kanayannur	124.6	103.6	21.0
Cochin	54.4	43.2	11.2
Moovattupuzha	254.6	243.8	10.8
Thodupuzha	394.2	394.2	..

The total population of the District according to the Census of 1961 is 1,859,913. Ernakulam gets the third rank in population among the Districts of the State.

History of the District as an Administrative Unit

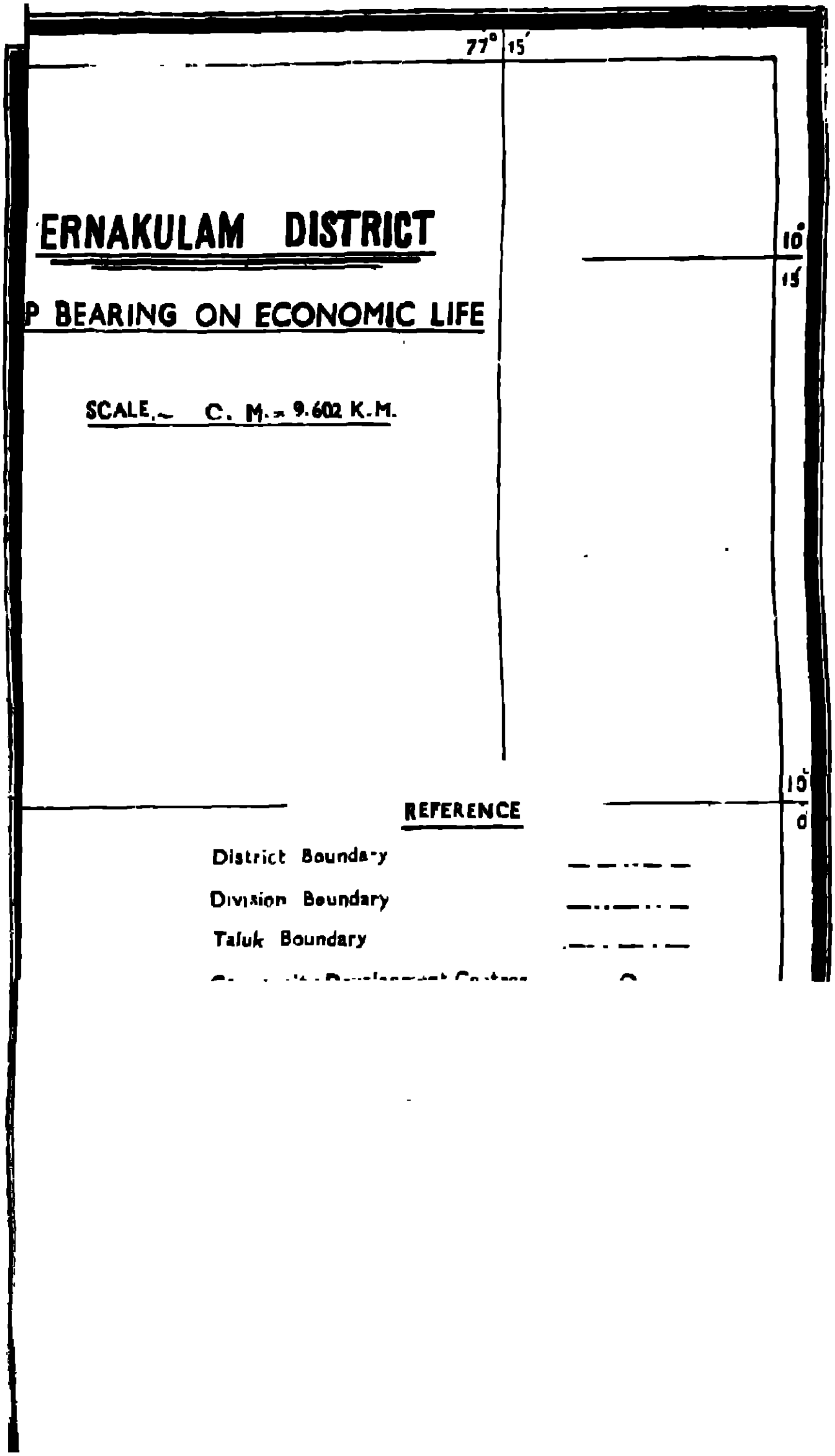
The Ernakulam District was first constituted on 1st April 1958.[2] It comprised of the Taluks of Alwaye, Parur, Kunnathunad, Kanayannur and Cochin of the erstwhile Trichur District and Moovattupuzha and Thodupuzha of the erstwhile Kottayam District. No changes in the administrative boundaries of the District have been effected since its formation.

Administrative Sub-Divisions

The District comprises of two Revenue Divisions and seven Taluks. The Moovattupuzha Revenue Division with

1 This is the figure supplied by the Department of Survey and Land Records to the Superintendent, Census Operations, Kerala State (1961). The area figure supplied by the Survey General of India was however 1,270 sq. miles.

2 Vide G. O. (Press) No. 264/Rev. (B) Department dated 22nd March 1958.



The District may be divided into three well-defined parts—the highland consisting of hills and forests, the

its headquarters at Moovattupuzha comprises of the Taluks of Moovattupuzha, Thodupuzha and Kunnathunad and the Ernakulam Revenue Division with its headquarters at Fort Cochin comprises of the Taluks of Cochin, Kanayannur, Parur and Alwaye. The Taluks are divided into Firkas and the Firkas into villages. There are on the whole 22 Firkas and 111 villages in the District. A Taluk-wise list of Firkas is given below.

TALUK	FIRKA
1 Parur	1 Parur
	2 Alangad
2 Alwaye	1 Alwaye
	2 Angamali
3 Kunnathunad	1 Perumbavur
	2 Rayamangalam
	3 Kunnathunad
	4 Kolencherry
4 Kanayannur	1 Ernakulam Municipal
	2 Ernakulam Rural
	3 Thiruvankulam
5 Cochin	1 Elangunnapuzha
	2 Cochin Rural
	3 Cochin Municipal
6 Muvattupuzha	1 Kothamangalam
	2 Moovattupuzha
	3 Koothattukulam
	4 Piravam
7 Thodupuzha	1 Thodupuzha
	2 Kudayathur
	3 Karimannur
	4 Kallurkad

A list showing the names of villages in each Taluk is given at Appendix I to this Chapter.

TOPOGRAPHY

Natural Divisions

The District may be divided into three well-defined parts—the highland consisting of hills and forests, the

midland consisting of the plains and the lowland consisting of the seaboard. The hilly or eastern portion is formed by a section of the Western Ghats and is broken by long spurs, extensive ravines, dense forests and tangled jungles, rising terrace after terrace, to an elevation of more than 1000 feet above sea level. Stretching westward, in gentler slopes and gradually widening valleys but broken here and there by isolated low hills, the plains succeed the forest-clad uplands. Intersected by numerous rivers and streams, dotted everywhere with homesteads or farms, plains stretch in a succession of gentle undulations towards a line of back-waters on the coast. Between the backwaters and the sea is a narrow and long stretch of sand. It is low and generally swampy, and is in several parts liable to be flooded during the monsoon inundations. The area receives the drainage of the numerous streams descending from the Western Ghats.

The following statement gives the area of the District by natural divisions.

Natural Divisions

Natural Division	Total (Sq. miles)	Rural (Sq. miles)	Urban (Sq. miles)
Total	**1,289.5**	**1,236.0**	**53.5**
Highland	386.9	386.9	..
Midland	679.6	661.6	18.0
Lowland	223.0	187.5	35.5

Hills

There are many hills in this District, particularly in the Taluks of Thodupuzha and Alwaye. They are of different elevations with varying degrees of climate and vegetation. Hills may be seen in all the 16 villages of Thodupuzha Taluk. Thodupuzha town and surrounding places are comparatively more plain and the eastern villages are more mountainous. The average altitude above sea level in this Taluk is more than 1000′ while some of the higher mountains rise to a height of 3000 feet and above. The Adur Mala, Morkat Mala, Chakkikavu Mala, Koovappilli Mala in Kudayathur village (together called Kudayathur Vindhyans—altitude 3,000 ft. and above), Elappilli Mala, Etattumala in Arakulam village (height 3,000 ft.), Mecheri

Mala, Nellikka Mala, Marukku Mala etc. of Velliyamattom Village (height about 2,000 ft.), Chilavu Mala, villamthanam Mala, Venniamudi of Udumbannur Village (height 1000 ft.) and Kottappara Mudi of Kodikulam Village (height 1500 ft.) are the important hills in this Taluk. The hills in the Alwaye Taluk are comparatively small. The names of some of the hills are given below:—1. Kannampilli Mala, 2. Kannampilli Thekketandu Mala, 3. Puthamkattu Vadakku Mala, 4. Kambadatada Mala, 5. Variyikambata Kunnu, 6. Oliyeri Mala, 7. Yadalakkattu Mala, 8. Inchakuzhi Mala, 9. Puthamkutty Mala, 10. Chulli Mala, 11. Karadikkunnu Mala, 12. Thelappalli Mala, 13. Karakkattu Mala, 14. Pottapara Mala, 15. Kallakkottu Kizhakke Mala, 16. Vallilakunnu Mala, 17. Pidikkappiria Kunnu, 18. Cheriapallikunnu, 19. Valiyaparambu Mala, 20. Wavadukunnu, 21. Pallisserikkunnu, 22. Pudumkuri Mala, 23. Cheruvalaitengu Mala, 24. Kattupallikkunnu, 25. Kobunnu Mala, 26. Tatchan Kunnu, 27. Elavur Para, 28. Mayiladum Para, 29. Vattakkuttam Kunnu and 30. Parottikunnu. None of the above hills is more than 800 feet above sea level.

In Parur and Kanayannur Taluks also there are some hilly areas. In the villages of Kanayannur, Mulanthuruthi, Amballur, Edakattuval, Kaipattur, Keecherri, Thrikkakkara South and Thrikkakkara North there are hilly areas 100 to 200 feet above sea level. The south-eastern border of the Parur Taluk is hilly rising to a height of 300 feet above sea level. There are no hills in Kunnathunad and Moovattupuzha Taluks.

The hilly areas, particularly in Thodupuzha, are rich in verdant lands, fertile soil and captivating flora and fauna. Cash crops like coconut, arecanut, rubber, cardamom, pepper, ginger, lemongrass and tea are also cultivated on a large scale.

Plateaus, Plains, Variations in Sea Level etc.

There are no plateaus in this District. Much of the area is plain land having natural facilities of drainage via backwaters and canals. The Cochin Taluk is divided into two blocks by the Cochin Azhi, viz., Vaipin kara on the northern side surrounded on all sides by water and the southern portion from Fort Cochin to Chellanam surrounded on three sides by water. The western portion and part

of the southern side of the Kanayannur Taluk are divided by backwaters. The Parur Taluk lies in the flat deltaic region of the Periyar river and is cut up by several canals, which has resulted in the formation of many islets (*thuruths*) in the northern parts of the Taluk. All the Taluks mentioned above have abundant facilities of natural drainage. In the hilly areas of Alwaye and Thodupuzha the main feature is the varying and irregular land level. The Periyar river which flows through the Thodupuzha, Moovattupuzha, Alwaye, Kunnathunad and Parur Taluks, functioning at times as Taluk boundaries and in the case of Thodupuzha Taluk separating it from the Udumbanchola and Peermade Taluks of Kottayam District, serves throughout all seasons as a line of natural drainage.

Sea coast, Estuaries, Lakes, Islands, etc.

The sea coast in this District which falls entirely in Cochin Taluk comes to about 30 miles in length. The Cochin Harbour which is a major natural harbour is also situated in the Cochin Taluk. Malipuram and Njarakkal in Vaipin Island are open road-steads. The mud bank at Njarakkal which is similar in origin and character to the mud bank at Alleppey extends about 3 miles along the shore and 4½ miles out to the sea. Ships can ride safely in these roads and load and unload cargo at all seasons. With the rise of the Cochin Harbour the usefulness and importance of Njarakkal and Malipuram are practically little.

The backwaters in the Cochin and Kanayannur Taluks are dotted with small islands. The main islands in Cochin Taluks are Willingdon Island, Vaipin and Ramanthuruthu. Those in the Kanayannur Taluk are:—1. Cheriakadamakudi, 2. Ponjikara (Bolghatty Island), 3. Vallarpadom (Panambukad), 4. Valiyakadamakudi, 5. Kumbalam, 6. Panangad 7. Cheppanam, 8. Nettur, 9. Pizhala, 10. Kankkattuthuruthu, 11. Korampadom, 12. Cheranellur and 13. Chathannur. Most of these islands are very small varying in extent from 4 sq. miles to less than a sq. mile. Chennamangalam in Parur taluk is also an island which is about a square mile in extent. Most of the islands in the backwaters have been formed by the deposit of Alluvium brought down by the rivers during the monsoon seasons. They are generally fertile and favourable for the luxuriant growth of coconut palms.

RIVERS

The main rivers of this District are the Periyar and the Moovattupuzha. The Periyar flows through all the Taluks of this District except Cochin. The Chalakudi river[1] flows for about two miles through the northern boundary of the Alwaye Taluk and joins the Periyar at Elanthikara in Parur Taluk. There are no changes in the course of these rivers. During the rainy season they are full and the low-lying areas on the banks in the Alwaye and Parur Taluks are affected by heavy floods. In the summer season they generally go dry and narrow, though they never go barren at any time in the year. In the rainy season the Moovattupuzha river rises 25 to 30 feet high in certain areas, particularly in Thodupuzha Taluk. In the summer season there is barely one foot of water in some places. When the proposed Idikki Hydro-Electric Scheme materialises there will be a perennial supply of water in the Thodupuzha Taluk throughout the year. Detailed accounts of the Periyar and Moovattupuzha rivers are given below.

The Periyar River

The Periyar river is the second longest river in the State. It rises from the forest clad Sivagiri Peak, 50 miles south of Devikulam (Kottayam District) at an elevation of 8,000 ft. above sea level. It traverses through immense cliffs of rocks, sandy beds and numerous gorges in the Taluks of Peermade, Udumbanchola and Devikulam in Kottayam District and then flows into the Ernakulam District through the once populous village of Neriamangalam, where a road bridge has been constructed across the river. Further 8 miles down, the Edamala river joins the Periyar. From here as far as Malayattur, the Periyar is 300 yards in width and is fed by numerous streams. Passing Malayattur and thereafter taking a meandering course of 14 miles, the river reaches Alwaye where it divides itself into two branches. The principal branch flows north-west, joins with the Chalakudi river at Puthenvelikkara and then expands itself to a broad sheet of water at Munambam. The other takes a southerly direction and is broken up into a number of small channels falling into the Vembanad lake at Varapuzha. It may be noted that the Periyar is known by different names

1. See *Trichur District Gazetteer* (page 6.) for a detailed account of the river.

in the different localities through which it passes. Thus while at Alwaye it is called the Alwaye river at Kaladi it is called by the name Purna.

The total length of the Periyar from its source to its destination is 142 miles and during its course of flow in this District it passes through the Thodupuzha, Moovattupuzha, Kunnathunad, Alwaye, Kanayannur and Parur Taluks. The total drainage area of the river is 2,040 sq. miles including the 304 sq. miles upstream of the Periyar dam. About 44 sq. miles of the drainage area lies in the Madras State. Some of the important places in the basin of the river in the District are Neriamangalam, Perumbavoor, Kaladi, Alwaye, Eloor, Parur, etc. At Kaladi the river is associated with the traditions that have grown around the name of Sankaracharya. The annual Sivarathri festival at Alwaye held on the banks of the Periyar attracts a lot of Hindu pilgrims from all parts of the State. There are some major industries located at Eloor, the Fertilisers and Chemicals, Travancore Ltd., (F.A.C.T.) and the Indian Aluminium Company being two of the important ones.

The Periyar river was gauged systematically for one year, viz., 1949-50 in connection with the Periyar Valley Irrigation Scheme investigation. Thereafter no regular gauging of the river was attempted till 1956, but from 1959 onwards, regular gauging of the Periyar at three places has been started and the discharge readings are recorded. Based on the discharge observed during the year 1949-50, which yielded a run-off of 218 Mcft. per sq. mile of drainage area the total run-off of the river from its entire catchment of 1736 sq. miles below the Periyar Dam has been estimated as 3,78,200 Mcft. The river is navigable throughout the year up to Malayattur and even up to Bhothathankettu with difficulty during hot months.

Moovattupuzha River

The Moovattupuzha river is formed by the confluence of three rivers, viz., Thodupuzha, Kaliyar and Kothamangalam which join together near Moovattupuzha town. It is from the meeting of these three rivers that the name "Moovattupuzha" is derived.

The Thodupuzha river is formed by the confluence near Talianad, of the Kudayathur and Vazhi streams which

have their sources distributed in the Vettikuria Malai, Pottambadi Malai, Nadugani Malai, Kudayathur Malai, Uppu Kunni and Kodikallu Malai. Till Talianad, the river wends its way through high hills and thick forests with practically very little cultivation on either bank. Thereafter, it flows through the midland areas comprising mainly of laterite soil. In its downward course, the river passes through the township of Thodupuzha and meets the Kaliyar river just outside Moovattupuzha town. The river follows a more or less northwesterly course throughout. The Vadakkanar which flows through the Thodupuzha Taluk is a tributary of the Thodupuzha river.

The Kaliyar river has its source in the hills of Nagarampara State forests. The several waterways streaming out from the above hills join together to form the Kamb Aar and Toni Aar which meet together to form the Kaliyar. These two streams starting from an altitude of about +3,000′ above sea level trace a winding path through the dense forests and Cardamom estates till its confluence at +250′ wherefrom it flows in a north-west direction and intercepts the Kannadipuzha, a stream originating from the Nagarampara forest. The north-west direction of flow is continued till Mulavur, where the river turns west and joins the Kothamangalam river. For the major portion of its journey, the river travels through rough mountainous terrain with dense forests and Cardamom estates. After entering the midlands, it passes through the Kaliyar Rubber Estate, where the soil is rich in laterite and thereafter through rich paddy fields.

The Kothamangalam river, originating from the Neriamangalam reserve forests at an altitude of about 2,000′ above sea level, flows through dense forests in a north-west direction till Kothamangalam town. There it changes its direction and flows south-west through the midland region and joins the Kaliyar river about 3 miles upstream of Moovattupuzha town.

From Moovattupuzha the combined discharges from the three rivers flow in a westerly direction, under the name Moovattupuzha river, for about 8 miles, and then turns south passing through Ramamangalam and Piravam. From Piravam, the river flows through low swampy lands and at Vettikattumukku it bifurcates, and flowing west, empties

its waters into the Vembanad Lake through Ithipuzha and Murinjapuzha at Vadakkemuri and Chembu respectively. The maximum length of the river is about 75miles and during its course, it passes through 45 villages in the Thodupuzha, Moovattupuzha, Vaikom and Kanayannur Taluks. The total drainage area of the river, otherwise known as the Moovattupuzha basin is about 588 sq. miles. The important towns in the basin are Thodupuzha, Moovattupuzha, Kothamangalam, Koothattukulam, Piravam and Vaikom. Thodupuzha, the headquarters of Thodupuzha Taluk, is a market place for hill produce, and Moovattupuzha, the headquarters of Moovattupuzha Taluk, situated at the junction of the Kaliyar and Thodupuzha rivers is, in addition to being an important market for hill produce, also an important communication centre. Kothamangalam was an important trading centre in former times when it carried on trade with Thirunelveli and Dindigul.

The Moovattupuzha river is being gauged at 4 points. viz., one each in the main river and its three tributaries. The run-off of the main river for the year 1957, as observed at Moovattupuzha, was 78,065 Mcft. for a catchment area of 392 sq. miles. The total catchment area of the river up to its mouth is 588 sq. miles and the total run-off of the river was estimated as 93,680 Mcft. There is considerable traffic in this river at all seasons up to Piravam, i.e., for a length of about 16 miles. Beyond this the traffic is confined almost exclusively to the favourable seasons from August to February when there is a fair amount of water in the river and the current is not too strong. It must, however, be noted that the minimum discharge in the river reduces to 20 cusecs during the driest period of the season.

Canals, Lakes, etc.

A canal having a length of 7 miles flows north to south between the villages of Cheranallur and Edappilli in Kanayannur Taluk. Another canal having a length of 5 miles flows through the boundaries of Elamkulam and Ernakulam. Branches of the Chalakudi Lift Irrigation Canal pass through the villages of Chengamanad, Kothakulangara, Manikkamangalam and Parakkadavu in Alwaye Taluk.

A portion of the Vembanad lake falls within the Cochin Taluk. It is used mainly for purposes of navigation and

fishing. On the northern side of the Parur Taluk lies the Kodungallur kayal and on the sourthern side the Varapuzha kayal. The Periyar river falls in the Varapuzha kayal. There are no other lakes worth mentioning in this District.

As for tanks there are large numbers of them all over the District which are used for drinking, bathing and irrigation purposes.

Waterfalls, Springs etc.

There are no important waterfalls worth mentioning in this District except one in Thodupuzha Taluk. In the Kudayathur village of Thodupuzha Taluk there is a waterfall coming from a height of 60' in Kallakathu thodu which has its origin from Morkkattumala. Further, there are a number of waterways flowing over the surface of steep rocks in the hilly areas of the District and it is a fascinating sight to see these gleaming silvery white streams set against a dark background when viewed from a distance.

There are no springs or springheads anywhere in this District.

No statistics are available about the underground water resources of the District. However, in almost all areas water is available in wells and tanks in all seasons.

GEOLOGY

The geological succession is as follows—

Recent	Recent sediments (Alluvium, Teris, Blown sands etc.) Mud banks, laterite.
Archaean	Basic dykes, Charnockites, Gneisses.

Gneisses

The major rock type within the Archaean is the biotite-granite-gneiss. This rock consists essentially of quartz and feldspar with variable amount of biotite (black mica). At places it has a banded appearance and has been called "Granite Gneiss". Garnet is also found associated with the rock in certain localities. The biotite granite is a grey or

whitish rock, medium or coarse grained. Dark grey, foliated gneiss occurs in the eastern part of the District. The strata of the gneiss is found to dip in various directions. Around Moovattupuzha and Thodupuzha, the dips are found to be between east and north-east, the most general direction being east-north-east. At Alwaye, it dips south-south-west.

Charnockites

Exposure of grey and greenish black charnockite, containing hypersthene, bluish grey quartz and feldspar is found in Thiruvankulam of Kanayannur Taluk. This charnockite is garnetiferous.

Dykes

The gneisses are traversed by dykes of varied composition at many places. The gabbro and dolerite dykes are respectively grey to dark grey and dark grey to dark in colour on fresh surfaces while the norite occasionally shows a green hue due to the alteration of pyroxenes to hornblende (uralitisation). Gabbro is coarse grained and consists essentially of feldspars and augite.

Dolerites of varying lengths and widths have been noticed on either side of the main gabbro dyke, but the main dyke is that which passes through Kothamangalam in a west-north-west direction, extending from Pymattam (near Neriamangalam), to as far west as Perumbavoor, for about 25.66 km.

Except these dykes of norite (including basic Charnockite) and dolerite are found in the eastern part of the District. In some valleys in the Moovattupuzha Taluk, fine grained norites are found.

Mud Banks

The mud bank which constitutes an off-shore barrie is a peculiar, very fine, soft, unctuous mud containing a considerable quantity of forminiferal and infusorial remains. It is found near Njarakkal or Cochin.

Laterite

Laterite is found, almost extensively forming low flat topped ridges and hills, covering the Archaeans, between the Western Ghats and the Arabian sea. The lateritization

is very pronounced in the Taluk of **Kunnathunad. The** laterite is formed by the decomposition in situ of rocks. The composition of the light coloured clayey material which underlies the laterites, taken from a depth of about 6.096 metres from the surface at a place, some 3.22 km. north of Moovattupuzha, is given below.

Moisture at 100	2.11
Ignition loss	10.38
Combined Silica (SiO_2)	8.36
Free Silica (SiO_2)	34.74
Ferric oxide (Fe_2O_3)	7.15
Titanium oxide (TiO_2)	6.19
Alumina (Ai_2O_3)	31.30
Phosphoric oxide (P_2O_3)	Trace
Calcium Suplhate ($CasO_4$)	..
	100.23

Recent sediments

The entire western part of the District is covered by the recent sediments.

ECONOMIC GEOLOGY

Plumbago (Graphite)

Plumbago is of frequent occurrence in the lateritised area between Moovattupuzha and Thodupuzha. In the villages of Peralimattam and Melmadangu, both on the banks of the Thodupuzha river south of Vazhakulam, there are some lateritized hills which show numerous veins of graphite some of which appear to be fairly large. These places are within a distance of 3.22 km. from the Moovattupuzha-Thodupuzha road.

Glass making sand

White sand is reported from Eroor, Puthiakavu, Nettur, Panangad, and Palluruthi in the Cochin and Kanayannur Taluks.

Kaolin

China clay, more or less free from iron compounds, occurs under the laterites, particularly near Mulanthuruthi. Alluvial clay free from sand is not very common in the District.

Ilmenite-Magnetite

Ilmenite, Magnetite, etc., are found in the beach sands of the District. These are also recorded in the Periyar and Moovattupuzha river sands.

Iron ore

The iron ore occurring in the District in large quantities is of the lateritoid type. A sample from Puthencruz in the Kunnathunad Taluk gave the following results on analysis.

Fe_2O_3	55.86 per cent
Al_2O_3	13.61 ,,
SiO	15.53 ,,
H_2O+	15.45 ,,

Iron ore of the quartz—Magnetite type is known to occur in the District in the area between Kunnakurudi and Pezhykapalli and also at Mazhuvannoor.

FLORA

Introduction

Like the other Districts of Kerala the flora of Ernakulam is characteristically tropical. The heavy rainfall combined with moderate temperature and fertile soil support a luxuriant vegetation in the District.

Physiographically the District may be divided into three regions:—

i Lowland (coastal region)
ii Midland
iii Highland (mountainous region)

The Lowland Region

This forms a somewhat narrow belt. The common plants found in the coastal area are *Launaea*, *Ipomoea*, *Portulca*, *Hydrocotyle*, *Spinifex*, *Lippia*, *Moniera*, *Cynodon*, *Digitaria*, *Cyperus* etc. Coconut is extensively cultivated throughout There are many tidal mangrove formations of *Rhizophora Avicennia*, *Sonneratia*, *Acrostichum*, etc.

The Midland Region

This area is mainly occupied by coconut cultivation. Plants like *Artocarpus*, *Areca*, *Anacardium*, Paddy, Plantains, Tapioca, Sugarcane, Pepper, Pulses etc. are the main cultivated forms in this region.

Highland (Mountainous) Region

The lower slopes are under Teak and Rubber cultivation. Fodder grass and essential oil yielding grasses, Bamboos, *Ochlandra* and Cardamom are also grown here.

Above 800 metres the temperature is relatively low and humidity high due to greater precipitation. A climax type of vegetation is seen here. Deciduous and evergreen forests are present. The undergrowth consists of many Bryophytes and Pteridophytes. Terrestrial and epihytic orchids, climbers, shrubs and woody plants occur in plenty. Some of the dominant trees are *Alainthus, Alstonia, Amoora, Anogeissus, Antiaris, Bassia, Bombax, Calophyllum, Canarium, Careya, Cedrella, Diospyros, Dipterocarpus, Elaeocarpus, Eriodendron, Filicium, Garcinia, Holoptelea, Hopea, Litsea, Memcylon, Mesua, Palaquium, Polyalthia, Pterocarpus, Tectona, Terminalia, Vateria, Xylia etc.*

A family-wise list of the more common plants in the District is given below, following the classification of Hutchinson. This is not an exhaustive list and for fuller information "Flora of South India" by Gamble may be consulted.

DICOTYLEDONS

Division I. **Lignosae**
Order: **Magnoliales**

Magnoliaceae

Michelia champaka, Linn. — Chempakom. A tall evergreen tree with valuable yellowish wood.

Annonales

Anonaceae

Anona squamosa, Linn. — Aathachakka. Small tree cultivated for its fruits.

A. muricata, Linn. — Valthi. Small tree. Cultivated for fruits.

A. reticulata, Linn. — "Custard apple" Small tree.

Artabotrys odoratissimus, R.Br.	Manoranjini. Shrub with fragrant flowers. Cultivated.
Cananga odorata, Hf & T.	Kaattuchempagom. Ornamental tree with fragrant flowers.
Miliusa velutina, Hf. & T.	Forest tree, valuable wood
Polyalthia longifolia, Benth.	Arana. Handsome evergreen avenue tree. Timber valuable.
P. fragrans, Bedd.	Nedunaaru. Handsome tree, wood used for masts of native craft.
Unona pannosa, Dalz.	A small tree.

Laurales

Lauraceae

Cassytha filiformis, Linn.	Mootillathali. A parasitic herb on trees.
Cinnamomum sulphuratum, Nees.	A tree with pale yellowish branches and leaves.
C. Zeylanicum, Breyn.	Karuva. Tree cultivated for its bark.
C. tamala, Fr.	Tree. Oil distilled from leaves.
Beilschmiedia wightii, Nees.	A large tree.
Litsea chinensis, Lamk.	A tall tree in forests.
Neolitsea zeylanica, Merr.	A small tree with thick bark, scented.
Machilus macrantha, Nees.	Uravu. A large tree with reddish white wood.

Myristicaceae

Myristica fragrans, Houtt.	Jaathi. The nut-meg tree. Valuable for fruits.
M. malabarica, Lamk.	

Dilleniales

Dilleniaceae

Acrotrema arnottianum, Wight.	Nilampunna. Pubescent herb.
Dillenia pentagyna, Roxb.	Kodappana. A deciduous tree.

Connaraceae

Connarus monocarpus, Linn.	Kureel. A straggling shrub.

Rosales

Rosaceae

Fragaria budranga, Linn. Prostrate herb.

Rosa Leschenaultiana, W & A. Rose. A straggling herb cultivated for its beautiful flowers.

Leguminales

Caesalpiniaceae

Cassia tora, Linn.	Thakara. A herbaceous weed medicinally important.
C. fistula, Linn.	Konna. A moderate sized tree with yellow flowers.
Bauhinia malabarica, Roxb.	Mandarum. Moderate sized tree with coloured flowers.
Caesalipinia bonduc, Roxb.	Kazhanji. A large straggling shrub.
C. pulcherrima, Sw.	Rajamalli. A large shrub with beautiful flowers.
Poinciana regia, Bojr.	Alasippu. A deciduous tree with bright red flowers. Valuable ornamental avenue tree.
Saraca indica, Linn.	Asokam. A small tree medicinal.
Tamarindus indica, Linn.	Puli. A large evergreen tree of great economic importance. Sour fruits valuable.

Mimosaceae

Acacia arabica, Willd.	Karivelum. A moderate sized tree. Bark medicinally important.
A. intsia, Willd.	Incha. A wild woody climber. Bark valuable.
A. concinna, D.C.	Cheevikka. A stout very prickly climbing shrub. Dried fruits used as substitute for soap.
Albizzia odoratissima, Benth.	Pulivaaka. A large tree almost deciduous with sweet scented white flowers.

A. procera, Benth.	Karinthakara. A large tree with conspicuous yellowish white bark. Wood useful.
Entada scandens, Benth.	A gigantic climber with small yellowish flowers.
Mimosa pudica, Linn.	Thottavaadi. The "touch me not" plant, a prickly herb.
Pithecolobium saman, Benth.	The "rain tree" used as avenue tree. Yeilding firewood.
Xylia dolabriformis, Benth.	Irumullu. A deciduous tree with bark wood, "Iron wood"
Adenanthera pavonina, Linn.	Manjaadi. A large tree yielding timber. Seeds medicinal and used as jewellers' weights
Abrus pricatorius, Linn.	Kunni. A conspicuous wiry climber with pink flowers and scarlet seeds. Seeds used as jewellers' weights.

Papilionaceae

Arachis hypogea, Linn.	Nilakkadala. A widely cultivated herb. Pods—peanuts—edible and yields groundnut oil.
Butea parviflora, Roxb.	Chamatha. A large deciduous tree, with a grey soft wood. It yields a red "kino gum" and the lac insect is grown upon it.
Crotalaria retusa, Linn.	Kilukki. A weedy herb.
Cicer arietinum, Linn.	Kadala. cultivated herb for seeds—"Bengal gram."
Dalbergia latifolia, Roxb.	Iety—Rosewood tree. A large deciduous tree.
Derris scandens, Benth.	Ponnamvalli. A twiner—used for making baskets.
Desmodium enneaphyllum, Linn.	Cherupulladi. Herb.
D. latifolium, DC.	Orila. An erect under shrub—leaves medicinal.

Dolichos lablab, Linn.	Mocha. A twiner cultivated for its pods.
Erythrina stricta, Roxb.	Murukku. A moderate sized tree with prickled bark. Wood soft, used for fishing net-floats.
E. indica, Lam.	Coral tree. Planted in hedges and as support for pepper. Very striking in flower.
Glycyrrhiza glabra, Linn.	Erattimadhurom. Twiner—medicinally important.
Indigofera tinctoria, Linn.	Amari. A herb cultivated for indigo-medicinal.
Phaseolus radiatus, Linn.	Cherupayaru. A herb cultivated for 'green gram'.
Pongamia glabra, Vent.	Ungu. A tree—sometimes planted as avenue trees.
Pterocarpus marsupium, Roxb.	Venga. An evergreen tree yielding timber.

Styracales

Symplocaceae

Symplocos spicata, Roxb.	Pachotti. A moderate sized tree.

Araliales

Araliaceae

Aralia malabarica, Bedd.	An ornamental shrub with variegated leaves.

Casuarinales

Casuarinaceae

Casuarina equisetifolia, Forst.	Mooli. A large tree-ornamental—wood used as fire-wood.

Urticales

Ulmaceae

Celits cinnamomea, Lindl.	Poothiyunarthi. A large tree—medicinally important.
Holoptelea integrifolia, Planch.	Aaval. Tree.
Trema orientalis, Blumii.	A wild large shrub.

Cannabinaceae

Cannabis sativa, Linn.	Ganja. A large aromatic resinous herb as a source of the drug "Ganja" and "Bhang."

Moraceae

Morus alba, Linn.	White mulberry. A shrub cultivated for fruits and leaves for feeding silkworms.
Artocarpus hirsuta, Lam.	Anjili. A tree, wild. Wood valuable for pannelling, flooring and boat building.
A. integrifolia, Linn.	Jack tree. Pilavu. Large evergreen tree—fruit edible—timber valuable.
A. incisa, Linn.	Kadappilavu. The "bread fruit tree" cultivated for fruits.
A. lakoocha, Roxb.	Seemapilavu. A large deciduous tree. Wood yields a yellow dye.
Antiaris toxicaria, lesch.	Maravurimarom. The tallest tree of S. India with fibrous inner bark. The milky juice is poisonous.
Dorstenia indica, Wight.	A small succulent herb, with peltate receptacles.
Ficus religiosa, Linn.	Arayal. A large tree with few or no aerial roots grown near temples.
F. bengalensis, Linn.	The "Banyan" tree with aerial roots. Held in reverence by Hindus.

F. retusa, Linn.	A large evergreen tree.
F. Tsiela, Roxb.	A large spreading tree.
F. gibbosa, Bl.	Ithi. A fair sized tree, usually epiphytic at first, often embracing other trees and eventually surrounding and killing them.

Urticaceae

Elatostemma wightii, Hook.	A succulent herb.
Fleurya interrupta, Lindl.	Choriyanam. A hairy stinging herb.
Laportea crenulata, Guad.	A stout shrub. Fibre yields a useful cordage "Elephant nettle" sting of hairs very painful.
Pilea microphylla, Liebm.	Prostrate herb.
P. stipulosa, Miq.	A stout herb.

Bixales

Bixaceae

Bixa orellana, Linn.	Kuppamanjal. A large ever green tree. Flowers large purple -seeds yield a red pigment.
Hydnocarpus wightiana, Blume.	Marooti. A large evergreen tree, wood greyish white. Oil used for treating Leprosy.

Flacourtiaceae

Flacourtia sepiaria, Roxb.	A small tree.
F. inermis, Roxb.	"Love-Love" tree. Fruits edible.
Casearia tomentosa, Roxb.	Malampavetta. A large tree.

Thymelaeales

Thymelaeaceae

Lasiosiphon eriocephalus, Dcne	A small tree with bright yellow flowers.

Nyctaginaceae

Boerhaavia diffusa, Linn.	Thamizhama. A diffuse herb with a stout root stock.

Bougainvillaea spectabilis, Willd.	A cultivated ornamental plant in different varieties.
Pisonia aculeata, Linn.	A large thorny climbing shrub

Proteales

Proteaceae

Grevillea robusta, A. Cunn.	'Silk Oak' Tree. A shady plant grown in tea estates.

Pittosporales

Pittosporaceae

Pittosporum tetraspermum, W & A.	A large shrub in forests.

Capparidales

Capparidaceae

Crataeva religiosa, Forst.	Neermathalam. A small tree with white flowers.
Capparis floribunda, Wt.	A woody climber.
Cleome viscosa, Linn.	A common weedy herb in fields and waste lands.
C. monophylla, Linn.	A weedy herb.

Moringaceae

Moringa oleifera, Lam.	Muringa. A graceful tree with corky bark. The long fruits are edible .
M. pterygosperma, Gaertn.	Wild muringa.

Violales

Violaceae

Viola patrinii, D.C.	A herb.
Ionidium travancoricum, Bedd.	Kalthamara. A herb.

Polygalales

Polygalaceae

Polygala chinensis, Linn.	A small shrub.
P. arillata, Ham.	A small shrub.
Xanthophyllum flavescence, Roxb.	A small tree.

Passiflorales

Passifloraceae

Passiflora foetida, Linn.	A wild climber.
P. edulis, Sims.	"Passion fruit". A cultivated climber.

Cucurbitales

Cucurbitaceae

Blastania garcini, Cogn.	A slender pretty annual climber. Fruits with prominent calyx.
Cucurbita maxima, Duch.	Mathan. A periodically cultivated vegetable. Fruits edible.
Cephalandra indica, Nand.	Koval. A climbing herb.
Bryonia scabrella, Arn.	Mukkapiri. Climbing herb.
Benincasa cerifera, Sair.	Kumpalam. Climber. Fruits edible.
Luffa aegyptiaca, Mill	Kattupeechil. A large climbing plant with smooth fruits. Old fruits give the fibrous skeleton forming a flush brush.
L. acutangula, Roxb.	Peechil. A climber with long angular fruits.
Trichosanthes cucumerina, Linn.	Patavalom. A slender annual climber.

Begoniaceae

Begonia malabarica, Lam.	A succulent herb cultivated in gardens.

Datiscaceae

Tetrameles nudiflora, R.Br.	Chini. A large deciduous tree with buttress roots. Wood used for dug-out canoes.

Caricaceae

Carica papaya, Linn.	Pappanga, "Papaw Tree". A small tree cultivated for edible fruits.

Cactaceae

Opuntia dillenii, Haw.	Nagakkalli. The "prickly pear". A succulent prickly plant with glaucous–green joints.

Tiliales

Tiliaceae

Grewia microcos, Linn	Kottah. An erect shrub with paniculate inflorescence.
G. tiliaefolia, Vahl.	A medium sized tree yielding wood. Strong and flexible.
Corchorus acutangulus, Lim.	An undershrub growing in marshy wastes.
Elaeocarpus tuberculatus, Roxb.	Rudraksham. A large tree with grey and white mottled bark. The rugose seeds are used to make necklace beads.
E. oblongus, Gaertn.	Kaara. A large tree. The leaves turn red when old.
Muntingia, Sps.	A medium sized tree, often grown on avenues.

Bombacaceae

Bombax malabaricum, DC.	Elavu. A conspicuous tree of gigantic size, flowering in hot season. Wood used for sea going boats.

Malvales

Malvaceae

Hibiscus rosa-sinensis, Linn.	Chemparuthy. A shrub with bright red flowers. Grown in gardens.
H. furcatus, Roxb.	A prickly trailing undershrub.
H. tiliaceus, Linn.	A much branched tree with handsome flowers and soft-wood.
Cullenia excelsa, Wt.	A tall buttressed tree with brownish white flowers.

Sida cordifolia, Linn.	Velloorum. A weed of road-sides and waste lands.
Sida rhombifolia, Linn.	A weed of waste lands. Kurum-thotti.
Eriodendron pentandrum, Kurz.	Poola. The white-cotton tree. Gives cotton used for pillows and cushions.
Thespesia populnea, Cav.	Poovarasu. A large evergreen tree with long peduncled flowers. Gives dark red wood, hard and durable.
Pavonia odorata, Willd.	A herbaceous branching weed.

Malpighiales

Malpighiaceae

Hiptage parvifolia, W & A.	A climbing shrub with white flowers.
Aspidopterys canarensis, Dalz.	A climbing shrub.

Erythroxylaceae

Erythroxylon monogynum, Roxb.	A small tree with a dark brown rough bark and very hard wood used for tanning.

Zygophyllaceae

Tribulus terrestris, Linn.	Neringal. A procumbent herb. Fruits medicinal.

Euphorbiales

Euphorbiaceae

Acalypha indica, Linn.	Kuppameni. An erect annual.
A. malabarica, Muell	A stout leafy annual herb.
Breynia rhomboides, Muell.	A large shrub.
Bridelia retusa, Spring.	A small tree with conical thorns on stems when young.
Baccaurea courtallensis, Muell.	An evergreen tree remarkable for the flowers in tufts on the stems, often the trunk appearing as a crimson mass.

Aporosa lindleyana. Baill.	A small tree with coriaceous leaves.
Excoecaria agallocha, Linn.	Komatti. An evergreen tree with a poisonous milky juice. Growing in tidal forests and swamps.
Hevea braziliensis, Muell.	The rubber tree. A deciduous tree with a milky latex. Tapped for rubber.
Manihot glaziovii, Muell.	The 'cera rubber tree". A moderate sized tree with milky latex.
Euphorbia hirta, Linn.	A straggling ascending herb growing on roadsides and waste lands.
E. rosea, Retz.	'Nilapana'. A herb with long root-stock and prostrate branches on sandy soils.
E. microphylla, Heyns.	A glabrous herb with prostrate branches.
E. tirucalli, Linn.	A large shrub called, 'Milk bush'.
E. antiquorum, Linn.	A small tree growing on rocky grounds.
Glochidion malabaricum, Bedd.	A small tree, leaves with prominent curved and arching nerves.
Phyllanthus niruri, Linn.	Keezhanelli. A branching annual herb often used in native medicine.
Rus communis, Linn.	Aavanakku. The castor plant. A shrub. The seeds yield castor oil.

Theales

Theaceae

Camellia thea, Link.	Theyila, A tree with dark bark and white flowers. Cultivated in high elevations.
Eurya japonica, Thumb.	A Shrub.

Ochnales

Ochnaceae

Ochna gamblei, King.	A small tree.
Ourateia angustifolia, Gilg.	A small tree with shining leaves.

Dipterocarpaceae.

Hopea parviflora, Bed.	Thampakom. A large handsome tree, yielding timber used for railway sleepers etc.
H. wightiana, Wall.	Pongu. A large tree with hard wood.
H. racophloea, Dyer.	Neduvalikong. A small tree with hard brown wood.
Shorea talura, Roxb.	Lac tree. A handome tree. Wood valuable.
S. robusta. Gaertn.	Sal tree. A gregarious forest tree.
Vatica chinensis, Linn.	"Vella pini". A large evergreen tree.
Vateria indica, Linn.	"Paini". A large tree. Bark yielding a resin 'copal.'.

Guttiferales

Clausiaceae

Calophyllum inophyllum, Linn.	Punna. An ornamental tree, seeds give an oil.
C. wightianum Wall.	Cherupunna. Tree.
Garcinia travancorica, Bed.	"Malampongu". A tree.
G. cambogia, Desr.	Kodapuly. A common evergreen tree. Wood used as fuel. Pulpy fruit well used.
G. mangostana, Linn.	Mangosteen tree. A cultivated tree for fruits.
Mesua ferrea, Linn.	'Nanga'. A large tree with a hard red wood.

Myrtales

Myrtaceae

Eugenia jambos, Linn.	'Paneer champa'. A tree cultivated for fruits.

E. jambolana, Lam.	Njaara. A tree with coriaciou leaves. Fruits violet when ripe.
E. malabarica, Linn.	Champa. A moderate sized tree.
Syzigium zeylanicum, D.C.	'Poola'. A handsome little tree with white flowers and edible fruits.

Lecythidaceae.

Barringtonia racemosa, Bhime.	Samudraksham. A gigantic tree with pendulous racemes of flowers.
Careya arborea, Roxb.	"Perzhu". A large deciduous tree with yellow-white flowers.
Couroupita guianensis Aubl.	"Nagalingappovu". A common ball tree. A huge tree, evergreen, cauliflorous scented flowers and large woody fruits.

Rhyzophoraceae

Bruguiera cylindrica, W & A.	A small tree, halophytic.
Carallia lucida,, Roxb.	A small evergreen tree with viviparous fruits. Growing in marshy places.
Kandelia Rheedii, W & A.	A small tree with pretty flowers with pendulous viviparous fruits, growing in swampy tidal areas.
Rhizophora mucronata, Lam.	"Kandal". The mangrove. A glabrous evergreen tree, having arching stilt roots, produces breathing roots. Viviparous. A valuable tanning material extracted from fruits and roots.

Sonneratiaceae

Sonneratia apetala, Roxb.	A moderate sized tree with upright breathing roots.

Punicaceae

Punica granatum, Linn. — Mathalanarakam. A shrub, important for its fruits, medicinal.

Combretaceae

Anogeissus latifolia, Wall. — Marukkanjirom. A large deciduous tree, leaves turn before falling. Gives a gum and the leaves are used in tanning.

Calycopteris floribunda, Lam. — Pullanji. A small tree.

Combretum acuminatum, Roxb. — Vellakorandi— A large climbing shrub. Branches used for cattle ropes.

Quisqualis indica, Linn. — The Rangoon creeper. A large beautiful straggler, with pendulous flower clusters.

Terminalia catappa, Roxb. — Tallithenga. A large deciduous tree. The trunk is used for masts.

T. paniculata, Roth. — "Maruthu". A large deciduous tree. Wood valuable.

T. chebula, Retz. — "Kadukka". A large tree. Fruits medicinal. Gives a valuable tanning material.

Melastomaceae

Osbeckia truncata, Don. — An erect annual herb.

Memecylon gracile. Bedd. — "Kasaavu". Shrub.

Celastrales

Aquifoliaceae

Ilex malabarica, Bedd. — A small densely branched tree

Icacinaceae

Sarcostigma kleinii, W & A. — Otam. A climbing shrub with entire, coriaceous leaves.

Mappia wightiana, Miers. — A moderate sized tree.

Celastraceae

Celastrus paniculata, Willd.	A climbing shrub.
Elaeodendron paniculatum, W & A.	A large tree often found in forests.

Santalales

Loranthaceae

Loranthus longiflorus, Desv.	'Ithikanni'. A large parasite shrub with handsome racemes of scarlet or pink flowers.
L. tomentosus, Heyne.	A small parasitic herb on various kinds of trees.
L. intermedius, Wight.	Parasitic herb on Cinnamomum.
Korthalsella japonica, Engler.	Small densely tufted parasite on Eurya, Ilex etc.
Viscum articulatum, Burm.	A slenderly branched parasitic shrub, found on chiefly deciduous trees.

Santalaceae.

Santalum, album, Linn.	Chandana marum. A small evergreen, semiparasitic tree, bark dark grey and rough, with heartwood yellowish and scented.

Rhamnales

Elaeagynaceae

Elaeagnus latifolia, Linn.	A climbing thorny shrub.

Rhamnaceae

Zizyphus jujuba, Lamk.	Ilantha. A low much branched thorny tree. Wood hard. Fruits edible.
Z. oenoplia, Mill.	A very large thorny climber.

Vitaceae

Leea Sambusina, Willd.	A large shrub.
Vitis lanata, Roxb.	A climbing shrub with porous wood.
V. pallida, W & A.	"Chunnampuvalli"— A large climber.

Myrsinales

Mysinaceae

Maesa perrottetiana, A. DC.	"Kirithi". A small tree with very small white flowers.
Aegiceras corniculatum, Blanco.	A pretty small tree with curved elongate fruits. Found in Mangrove forests along coastal regions.

Ebenales

Ebenaceae

Diospyros embryopteris, Pers.	'Panachi'. A large woody tree. Fruits yield a tannin.
D. Ebenum, Keonig.	Karimarum. A large tree with greenish yellow flowers and sub-globose fruits seated in a cup. Wood very hard, heartwood jet black.

Sapotaceae

Achras sapota, Linn.	The sapota tree, large tree cultivated for fruits.
Bassia longifolia, Linn.	Elluppi. A large tree, flowers appearing with the leaves. Wood very hard.
Chrysophyllum cainito, Linn.	Star apple. A tree with shining leaves covered beneath with golden silky hairs.
Palaquium ellipticum, Engler.	A lofty tree with a straight fluted stem.

Rutales

Rutaceae

Aegle marmelos, Corr.	Koovalam. A small deciduous tree, thorny, with glabrous leaves, aromatic, fruits pulpy, medicinal.
Acronychia pedunculate, Miq.	A small evergreen tree.
Citrus acida, Linn.	Cherunarakam. An evergreen throny shrub.

There are other cultivated varieties of this viz., *C. medica*, the citron; *C. limonum*, the Lemon; *C. limetta*, the sweet lime.

Feronia elephantum, Corr.	A deciduous spiny tree. The pulp of the fruit is eaten.
Toddalia bilocularis, W & A.	Kaarakil. A tree armed with recurved prickles.
Ruta graveolens, Linn.	Arrotha. A scented herb medicinally important.

Simarubaceae

Ailanthus malabarica, DC.	Mattippaal. A lofty deciduous tree with soft white wood.
A. excelsa, Roxb.	Peru. A beautiful tree with soft white wood.
Samadera indica, Gaertn.	Karingotta. A small tree with shining leaves and soft bitter wood. Seeds yield oil.

Burseraceae

Boswellia serrata, Roxb.	A large tree of rocky places with ash coloured bark.
Canarium strictum, Roxb.	Kunthirikka payin. A large handsome tree with white straight cylindrical stem. Gives a black resin.

Averrhoaceae

Averrhoa carambola, Linn.	Tree produces fruits with angular lobes.
A. bilimbi, Linn.	"Puldi". Tree with fruits having rounded lobes.

Meliales

Meliaceae

Aglaia Bourdillonii, Gamble.	A glabrous tree with minute flowers.
Azadirachta indica, A. juss.	A very useful deciduous tree with a hard close grained wood. Yields oil used for food and medicinal purposes.
Cedrella toona, Roxb.	"Malaveppu". A large woody tree with scented wood.
Dysoxylum malabaricum, Bedd.	Vella agil. Large tree reaching 120′ height. Wood light yellowish orange, flexible and hard.
Swietenia mahogani, Linn.	The mahogani tree — planted as avenue trees and useful timber.

Sapindales

Sapindaceae

Cardiospermum halicacabum, Linn.	A tendril bearing climber.
Dodonaea viscosa, Linn.	A small tree in shola forests and sometimes planted as a hedge plant.
Filicium decipieus, Thw.	Niroli. A handsome tree with elegant fern like leaves, richly winged.
Sapindus trifoliatus, Hiern.	Soapnut tree. Large sized, known for its fruits.
Schleichera trijuga, Willd.	A large deciduous tree with leaflets bright-red when young.

Anacardiaceae

Anacardium occidentale, Linn.	The cashew tree. A small tree with thick trunk. Known for the cashew apples and nuts.
Buchanania angustifolia, Roxb.	Kolamaavu. A medium sized tree with rough deeply fissured bark.

Mangifera indica, Linn.	The mango tree. A large spreading evergreen tree. Many cultivated varieties exist.
Spondias mangifera, Willd.	"Ambazham". A large tree with large leaflets. Berries pickled.
Odina wodier, Roxb.	Kalasham. A large deciduous tree with thick bark producing a dark gum.
Semicarpus anacardium, Linn.	The marking nut tree. A moderate sized tree. The pericarp of the fruit produces the marking ink.

Aceraceae

Acer negundo, Linn.	A large tree with winged double fruits.

Loganiales

Buddleiaceae

Buddleia asiatica, Lour.	A moderately sized shrub.

Strychnaceae

Strychnos nux-vomica, Linn	The Nux vomica tree. A large deciduous tree with greenish white flowers. The seeds contain srtychinne.

Oleaceae

Jasminum sambac, Ait.	Kodimulla. An erect or sometimes climbing shrub with fragrant white flowers.
Myxopyrum serratulum A. W. Hill.	A large climbing shrub.
Nyctanthes arbor-tristis, Linn.	"Paarijatham". A bushy shrub. Flowers fragrant, with yellow corolla tube, come out in the evening and fall off in the morning.

Apocynales

Apocynaceae

Alstonia scholaris, R. Br.	Paala. A large evergreen tree with greenish white flowers.
Holarrhena antidysenterica, Wall.	Kodakappaala. A small tree with white flowers. Seeds medicinally important.
Ervatamia coronaria, Stapf.	Nandiarvattom. A shrub with white scented flowers.
Wrightia tinctoria, R. Br.	A small deciduous tree with white flowers. The leaves give a blue dye.
Ichnocarpus frutescens, R. Br.	"Paalvalli". A much branched, extensively climbing rusty-willous shrub.
Nerium odorum, Soland.	Arali. The Indian Oleander a shrub with pink flowers

Periplocaceae

Hemidesmus indicus, R. Br.	Narunandi. A much twining wiry shrub with polymorphous leaves.

Asclepiadaceae

Asclepias curassavica, Linn.	An erect milky herb with bright orange red flowers.
Calotropis gigantea R. Br.	A large shrub, very pale in colour, the branches, leaves and inflorescences covered with loose soft white wool.
Cynanchum callialata, Ham.	A herbaceous twining shrub.
Tylophora zeylanica, Dcne.	A superb and very large creeper with deep purple flowers.
Ceropegia beddomei, Hook.	A slender twiner with slender flowers, dark purple lobes.

Rubiales

Rubiaceae

Adina cordifolia, Hook.	A large deciduous tree with yellow flowers.

Mitragyna tubulosa, Hav.	Malanthumba. A small deciduous tree with purple flowers and pinkish brown wood.
Hymenodictyon excelsum, Wall.	"Itthilee". A large tree with pale green flowers.
Oldenlandia umbellata, Linn.	A stiff herb medicinally important.
Mussaenda frondosa, Linn.	"Vellila". A straggling shrub with red flowers.
Gardenia jasminoides, Ellis.	The cape jasmine. A shrub with very fragrant flowers.
Ixora coccinia, Linn.	Chethi. A shrub with bright red flowers in bunches. Flowers and roots medicinal.
Knoxia corymbosa, Willd.	An erect herb with pale lilac flowers.
Pavetta indica, *Linn*.	A small tree with pretty white flowers
Coffea arabica, Linn.	A large shrub with white flowers.

Bignonales

Bignoniaceae

Millingtonia hortensis, Linn.	A tall tree with sweet scented flowers.
Spathodea campanulata, Beauv.	A tree with large orange-scarlet flowers.
Kigelia pinnata, DC.	A small tree with pendulous recemes of large red flowers and a long stalked large gourd-like fruit.

Pedaliaceae

Pedalium murex, Linn.	A branching subfleshy herb. The whole plant is medicinal.
Sesamum indicum, Linn.	Ellu. An erect annual branching from the base. Seeds give oil.

Martyniaceae

Martynia annua, Linn.	Pulinaghum. A coarse clammy pubescent herb, with handsome rose coloured flowers.

Verbenales

Verbenaceae

Lantana camara, Linn.	A very aromatic plant with the scent of black currants. The plant is a troublesome weed.
Lippia nodiflora, Mich.	A prostrate herb with small white flowers.
Stachytarpheta indica, Vahl.	A tall herb with long slender spikes of blue flowers.
Callicarpa lanata, Linn.	"Cheruthekk". A small tree with purple flowers, wood hard.
Tectona grandis, Linn.	Thekku. The teak tree. A very large deciduous tree. Wood golden yellow.
Premna latifolia, Roxb.	A small tree with leaves usually drying blue or black.
Clerodendron inerme, Gaertn.	A straggling herb.
Vitex trifolia, Linn.	"Nochi". A shrub, quite small, with pale purple flowers.
Vitex negundo, Linn.	"Karinochi". A large shrub. Leaves medicinal.
V. Altissima, Linn.	Mayila. A large and lofty tree.
Avicennia officinalis, Linn.	"Uppootha". A small tree along the coast and marshes.

DIVISION. II—HERBACEAE

Ranales

Ranunculaceae

Naravelia zeylanica, DC.	A climbing shrub common in hedges and thickets.

Nymphaeaceae

Nymphaea stellata, Willd.	A large perennial aquatic herb with floating leaves.
N. lotus, Linn.	"Vellambal". A large aquatic herb with white flowers.
Nelumbium speciosum, Willd.	Thamara. The sacred lotus. A large aquatic perennial herb.

Ceratophyllaceae

Ceratophyllum demersum, Linn.	A submerged herb with highly dissected leaves.

Berberidales

Menispermaceae

Tinospora cordifolia, Miers.	Amrithu. A climbing shrub with succulent stems. The bark is papery at first, then corky.
Tiliacora acuminata, Miers.	A climbing shrub common is hedges and among bushen
Pachygone ovata, Miers.	A large evergreen spreading shrub with long druping or climbing branches.
Stephania wightii, Dunn.	A climbing shrub.

Berberidaceae

Mahonia leschenaultii, Takeda.	A shrub with stiff erect corky-barked stems.

Aristolochiales

Aristolochiaceae

Aristolochia indica, Linn.	"Karal begum". A perennial climber with greenish white tubular flowers. A bitter plant, said to be an antidote to snake-bite.

Piperales

Piperaceae

Piper nigrum, Linn.	Kurumulagu. A stout glabrous root climber.

P. longum, Linn.	Thippali. A slender undershrub, creeping and rooting below.
P. betle, Linn.	Vettila. A perennial creeper extensively cultivated for its leaves.
Peperomia pellucida, H. B. & K.	A succulent herb with weak transparent stem.

Rhoeadales

Paparaceae

Argemone mexicana, Linn.	A strong branched prickly annual herb with yellow flowers. A weed.

Cruciales

Cruciferae

Brassica nigra, Koch.	Katuku. A herb cultivated for seeds.

Caryophyllales

Elatinaceae

Bergia capensis, Linn.	A glabrous succulent herb.

Molluginaceae

Mollugo hitra, Thumb.	A prostrate herb covered with hairs.
M. pentaphylla, Linn	An erect slender glabrous herb.

Caryophyllaceae

Polycarpaea corymbosa, Lam.	An erect herb.
Cerastium vulgatum, W & A.	A pubescent herb.

Ficoidaceae

Trianthema portulacastrum, Linn.	A weed of wastelands and roadsides.

Portulacaceae

Portulaca oleracea, Linn.	A prostrate succulent herb.
Talinum cuneifolium, Willd.	A small shrubby plant with purple flowers and pea like fruits.

Polygonales

Polygonaceae

Polygonum glabrum, Willd.	An erect annual herb, rooting from lower nodes, leaves very slender.
Muehlenbeckia patyclades, Meissn.	A glabrous erect shrub grown in gardens. It has smooth flattened leaflike branches.

Chenopodiales

Chenopodiaceae

Chenopodium murale, Linn.	A small herb.

Amaranthaceae

Amaranthus spinosus, Linn.	"Mullencheera". An erect spinous herb. Leaves eaten as spinach.
A. paniculatus, Linn.	A tall annual herb grown for its seeds. A good spinach
Achyranthes bidentata, Linn.	A herb.
A. aquatica, R. Br.	A tall fleshy water plant growing in mud.
A. aspera, Linn.	An erect herb on roadsides.
Aerva lanata, Juss.	"Cheroola". A many branched undershrub.
A. tomentosa, Forsk.	A very white conspicuous undershrub.
Alternanthera triandra, Lam.	A very common weedy herb on road sides and waste lands.

Basellaceae

Basella rubra, Linn.	"Pasakeera". A succulent climbing herb. A good vegetable.

Lythrales

Lythraceae

Ammania baccifera, Linn.	Kallurukky. A small herb common in moist waste lands.

Lawsonia alba. Linn.	Mailanchi. A common shrub, spinous grown in hedges.
Lagerstroemia lanceolata, Wall.	Vantekku. A woody tree yielding useful timber.
Woodfordia floribunda, Salish.	Thathiripoovu. A shrub producing orange flowers, medicinally important.

Onagraceae

Ludwigia parviflora, Roxb.	An aquatic herb.
Jussiaea repens, Linn.	A floating herb with inflated white floats.

Trapaceae

Trapa bispinosa, Roxb.	The water chestnut. A handsome floating reddish green herb with leaf mosaic.

Haloragidaceae

Myriophyllum indicum, Willd.	A submerged herb with tubular stem and dissected leaves.

Gentianales

Gentianaceae

Exacum bicolor, Roxb.	A small herb.

Menyanthaceae

Limnanthemum cristatum, Grisеb.	A submerged herb with dissected leaves.
L. indicum. Thw.	An aquatic slender herb.

Primulales

Plumbaginaceae

Plumbago zeylanica, Linn.	Koduveli. A straggling herb fruits covered with sticky glands. Medicinal.
Plumbago capensis, Thumb.	Neelakoduveli. A straggler, fruits with glands.
P. Rosea, Linn.	"Chovappukoduveli". A straggler.

Saxifragales
Crassulaceae

Bryophyllum pinnatum, Kurz. "Elappacha". A herb with stout succulent leaves. It is remarkable for forming new plants at the crenatures of the leaf.

Umbellales
Umbelliferae

Centella asiatica, Urban.	Kodavan. A trailing herb growing in moist places. Medicinal.
Hydrocotyle rotundifolia, Linn.	A trailing herb growing in bogs and on bone wet soil.
Coriandrum sativum, Linn.	"Kothamalli". A herb grown for culinary purposes.

Campanulales
Campanulaceae

Lobelia trigona, Rox.	A swampy herb.
Sphenoclea zeylanica, Gaertn.	A small wild herb in waste-lands.

Goodeniales
Goodeniaceae

Scaevola frutescence, Kranse.	A large shrub with large fleshy leaves and white flowers.

Astrales
Compositae

Acanthospermum hispidum, DC.	A hairy common dry weed producing heads at forking branches and fruits spiny.
Ageratum conyzoides, Linn.	"Appa". A very common wildly growing weed.
Blumea lacera., DC.	A weedy herb.
Conyza ambigua, DC.	A very small hairy herb.
Elephantopus scaber, Linn.	"Aanayadian". A small herb with root stock and leaf mosaic.

Eclipta alba, Hassk.	Kayunniam. An erect branched herb growing near water.
Sphaeranthus indicus, Linn.	"Adakkamaniyan". A weed with globose heads, smelling raw mangoes, growing in marshes.
Spilanthes acmella, Murr.	"Akravu". A weedy herb with beautiful orange yellow heads.
Launaea pinnatifida, Cass.	"Kadalkozzhuppa". A spreading herb, with root stock and yellow heads, growing in sandy beaches.
Xanthium strumarium, Linn.	A wildly spreading weedy herb with large fruits with strong hooks.

Solanales

Solanaceae

Capsicum frutescens, Linn.	"Mulaku". The chilly plant. A herb often cultivated for fruits.
Datura stramonium, Linn.	"Ummum". The thorn apple. A large shrub with large tubular flowers. Medicinally important.
Lycopersicum esculentum, Mill.	Tomato plant. A shrub commonly cultivated.
Physalis minima, Linn.	"Nottanjodiyan". A herbaceous annual with yellow flowers and covered fruits called the Cape Gooseberry. Medicinal plant.
Solanum nigrum, Linn.	An erect annual herb.
S. indicum, Linn.	"Chunda". A branching very prickly under-shrub, with dark yellow berries.
S. torvum, Swartz.	A shrub reaching about 12 feet in height, producing yellow shining berries.

The family also contains many species like, *Cestrum*, *Petunia* etc. grown in gardens.

Convolvulaceae

Calonyction Boxa-nox, Boj. — The Moonflower. A large climber with large leaves and white flowers. Flowers, which are sweet scented open only during night time.

Evolvulus alsinoides, Linn. — "Vishnukranthi". A perennial herb with a woody root-stock and many spreading wiry branches.

Ipomaea reptans, Poir. — An annual, growing on the margins of tanks and in other wet places, often floating on surface.

I. campanulata, Linn. — A large climber with white or pale rose-coloured flowers, purple in the tube.

I. pes-caprae, Sweet. — An extensively creeping and sand truding plant with a thick long root-stock, handsome purple red flowers and curious bilobed leaves.

I. batatus, Poir. — "Madhurakkizhangu". A trailing shrub rooted at nodes, cultivated for sweet potato.

Many other species of *Ipomaea*, *Quamoclit pinnata*-Boj, *Porana malabarica*, C.B. Clarke, several species of *Convolvulus* etc. are also present.

Personales

Schrophulariaceae

Adenosma capitatum, Hook. — An erect herb with blue flowers. Plant is scented.

Ilysanthes reptans, Urban. — A creeping herb with light purple flowers.

Limnophila heterophylla, Benth. — An erect herb in rice fields and wet places. Leaves of different forms, branches often from the nodes of a long underwater horizontal stem with many capillary leaves.

Moniera cuneifolia, Michx.	A somewhat succulent creeping herb with blue flowers, in wet places.
Pedicularis zeylanica, Benth.	A herb in open grass lands in damp localities.
Scoparia dulcis, Linn.	A glabrous undershrub with small white flowers.

Acanthaceae

Acanthus ilicifolius, Linn.	A gregarious shrub with large blue flowers and spinous holly like leaves; growing in marshy places.
Asteracantha longifolia, Nees.	"Vayalchulli". A tall hispid herb with pale blue-purple flowers, growing in rice fields and margins of tanks.
Andrographis paniculata, Nees.	"Kiriyath". An erect herb with pink corolla. A bitter plant used in medicine.
Adhatoda vasica, Nees.	"Aadalotam". A dense shrub with a foetid smell, flowers white. Leaves medicinal.
Blepharis molluginifolia, Pers.	A prostrate wiry undershrub with small blue flowers. Growing on dry stony lands or sandy beaches.
Barleria cristata, Linn.	A herbaceous hairy undershrub.
Crossandra undulaefolia, Salish.	"Kanakambaram." A pretty undershrub with orange-yellow flowers and whorled leaves.
Justicia serpyllifolia, Ganble	A small straggling herb, rooted at the nodes.

Lentibulariaceae

Utricularia stellaris, Linn.	A waterplant with yellow flowers, only the inflorescence showing above the surface, held by the floats. Insectivorous.

Geraniales

Oxalidaceae

Biophytum sensitivum, DC. — "Mukkutti". An annual herb growing in open places, road-sides etc. sensitive to touch.

Oxalis corniculata, Linn. — "Puliyaaral". A diffuse creeping herb with long stalked leaves, sour tasting.

Balsaminaceae

Impatiens balsamina, Linn. — A wild herb with pink flowers and exploding fruits.

Polymoniales

Hydrophyllaceae

Hydrolea zeylanica, Vahl. — An annual herb, rooting at the nodes, with bright blue flowers, in rice fields and on the margins of water-courses etc.

Boraginales

Coldenia procumbens, Linn. — A herb with trailing stem lying flat on the ground, the young parts very white and silky.

Heliotropium indicum, Linn. — "Thekkada". An annual herb with violet or white flowers on long axis.

Lamiales

Labiatae

Anisomeles malabarica, R. Br. — "Karimthumpa". A large herb smelling strongly of camphor.

Coleus aromaticus, Benth. — "Panikoorkka". A large succulent, aromatic herb. Medicinal.

Coleus Blumei, Benth. — A beautiful herb with leaves mottled, multicoloured and is cultivated in gardens.

Leucas aspera, Spreng. — An erect small hairy scented herb with white flowers.

Ocimum basilicum, Linn. "Ramathulasi". A large herb with white or pale purple flowers. Scented, medicinal.

O. sanctum, Linn. "Krishnathulasi". An erect much branched softly pubescent herb, scented and sacred for Hindus. Medicinal.

MONOCOTYLEDONS

DIVISION I—CALYCIFERAE

ORDER : BUTOMALES

Hydrocharitaceae

Blyxa echinosperma, Hook. A submerged stemless, tufted herb in still waters in the coastal areas

Hydrilla verticillata, Royle. Submerged leafy herb in still waters.

Ottelia alismoides, Pers. A falccid water herb common in tanks and sluggish streams.

Alismatales

Alismataceae

Alisma oligococcum, F. Muell. A scapigenous herb with white flowers.

Sagittaria sagittifolia, Linn. Erect aquatic herb.

Aponogetonales

Aponogetonaceae

Aponogeton monostachyon, Linn. A floating or submerged aquatic herb.

Potomogetonales

Potomogetonaceae

Potomogeton indicus, Roxb. A floating herb.

Najadales

Najadaceae

Najas minor, All. A small marshy herb.

Commelinales

Commelinaceae

Commelina nudiflora, Linn. A slender creeping herb with blue flowers.

Cyanotis papilonacea, Schult. A prostrate terrestrial herb with blue flowers.

Xyridales

Xyridaceae

Xyris anceps, Lamk A robust herb with strongly ridged scapes growing in sandy places.

Eriocaulales

Eriocaulaceae

Eriocaulon robustum, Steud. Annual marshy herb.

Zingiberales

Musaceae

Musa paradisiaca, Linn. The plantain or banana tree, extensively cultivated.

Musa superba, Roxb. The wild plantain.

Ravenala madagascarensis, Sonn. The Traveller's Tree with large plantain like leaves forming a fan like head. Grown ornamentally.

Zingiberaceae

Alpinia galanga, SW. "Aratha". A herb with greenish white flowers. Rhizome medicinally important.

Curcuma longa, Roxb. Turmeric. A perennial herb with under ground rhizomes. Economically important.

Curcuma amada, Roxb. The mango-ginger plant.

Curcuma aromatica, Salish. Wild turmeric.

Kaempferia galanga, Linn. Herb with rhizomes, flowers fragrant, white.

Elettaria cardamomum, Maton. The Cardamom. Large herb with leafy stem with thick rootstock. Flowers arise in inflorescence produced from the base of the plant.

Cannaceae

Canna orientalis, Rosc. — An erect herb with flowers bright red or yellow or white, cultivated in gardens.

Marantaceae

Maranta arundinaceae, Linn. — The arrow root. "Koova". A perennial herb.

DIVISION II—COROLLIFERAE

Lilliales

Liliaceae

Aloe vera, Linn. — "Kattaarvazha". A dwarf plant with fleshy leaves, aggregated. Horny prickles present at margins of leaves.

Asparagus recemosus, Willd. — "Sathavari". A climbing undershrub bearing shiny leaf-like branches. Tubers are medicinally valuable.

Gloriosa superba, Linn. — "Menthonni". A climber with herbaceous stem, produces brightly coloured flowers. The tubers are poisonous.

Urginea indica, Kunth. — A bulbous herb with dingy-brown flowers.

Pontederiaceae

Eichhornia crassipes, Solms. — A beautiful introduced plant which has spread wildly in waterways and ponds. The water Hyacinth.

Monochoria hastaefolia, Presl. — "Karinkoovalam". A creeping herb in marshes.

Arales

Araceae

Acorus calamus, Linn. — "Vayampu". An aromatic marsh herb with root stock, medicinal.

Arisaema tortuosum, Schott.	The cobra flower. A tuberous herb.
Amorphophallus campanulatus, Bl.	A tuberous herb cultivated for its edible tubers.
Pothos scandens, Linn.	A rooting climber growing on trees and rocks like ivy.
Colocasia antiquorum, Schott.	"Chembu". A tall coarse herb, tuberous. Cultivated for the edible tubers.
Typhonium flagelliforme, Bl.	"Karanakkizhangu". A tuberous herb with greenish spathe.

Lemnaceae

Lemna gibba, Linn.	A floating minute plant with frond flat with root below. Present in still waters.
Wolffia arrhiza, Wimm.	A small floating plant with fronds subglobose. Rootless.

Amaryllidales

Amaryllidaceae

Crinum asiaticum, Linn.	A stout herb with white flowers, often grown in gardens.
Pancratium triflorum, Roxb.	A large herb with root stock, flowers pure white, fragrant.
Curculigo orchioides Gaertn.	"Nilappana". A stemless herb with tuberous root stock leaves produce bulbils at the tips.

Dioscoreales

Dioscoreaceae

Dioscorea esculenta, Bruk.	"Mullankizhangu". A climbing herb often cultivated for the edible tubers.
Dioscorea alata, Linn.	"Kaachil'. Widely cultivated climbing herb.

Palmales

Palmae

Areca catechu, Linn.	"Adakkamarum". A graceful tree with raised rings. The seed is a well known mastigatory and is used in medicine.
Borassus flabellifer, Linn.	"Karimpana." A tall stout unisexual palm with fanlike leaves, woody.
Calamus rotang, Linn.	"Chooral." A tall slender climber yielding cane.
C. travancoricus, Bedd.	A graceful slender climber yielding cane.
Cocos nucifera, Linn.	The coconut palm. Stem slender, curved or straight 15-30 metres high marked with ring like marks.
Caryota urens, Linn.	The bastard sago palm.
Corypha umbraculifera, Linn.	The Talipot palm. "Kodappana."

Orchidales

Orchidaceae

There are several epiphytic and terrestrial species occurring in the plains and forests of this District. The following are some of the most common species.

Oberonia verticillata, Wt.	An epiphytic small herb, flowers dull orange coloured.
Microstylis wallichii, Lindl.	A terrestrial herb, flowers purplish or yellowish.
Liparis astropurpurea, Lindl.	A pseudobulbous terrestrial herb; flowers vinous purple.
Bulbophyllum nilgherrense, Wt.	An epiphytic herb with brownish yellow flowers.
Coelogyne glandulosa, Lindl.	A terrestrial herb; flowers white.
Calanthe veratrifolia, Br.	A terrestrial herb; flowers white.
Vanda Roxburghii, R.Br.	An epiphytic herb; flowers having petals tessellated yellow with brown lines and white margins.

Habenaria longicalcarata, A. Rich.	A terrestrial herb with white flowers having green spur.

DIVISION III—GLUMIFLORAE
ORDER: JUNCALES
Juncaceae

Juncus prismatocarpus, R.Br. A glabrous herb.

Cyperales
Cyperaceae

Bulbostylis barbata, Kunth.	An annual herb, the whole plant turning reddish on drying.
Carex foliosa, D. Don.	An erect herb with perennial rhizome, stem leafy at the base.
Cyperus cephalotus, Vahl.	An annual floating herb with flat or terete and channelled leaves.
Kyllinga triceps, Rottb.	A herb with 3 angled stem.
Eleocharis capitata, R. Br.	A herb with stout rhizome growing in rice fields and all moist places.
Fimbristylis ferruginea, Vahl.	An erect herb with tufted stem and fibrous root.

Graminales
Gramineae

Zea mays, Linn.	"Kambam". A tall herb cultivated in many localities.
Coix lachryma, Linn.	A tall erect plant, leaves eaten by cattle.
Spinifex littoreus, Merr.	A gregarious, much branched woody herb, leaves rigid spreading and recurved. Growing in sandy beaches. A useful sandbinder.
Saccharum officinarum, Linn.	"Karimpu." The sugar cane plant.

S. spontaneum, Linn.	"Vellakarimpu." Wildly growing tall herb, usually near water. A good fodder for cattle.
Vetiveria zizanioides, Nash.	"Ramachom." A coarse perennial herb growing near water. The aromatic roots yield the khas-khas. An aromatic and medicinal oil is extracted from roots.
Cymbopogon nardus, Rendle.	The citronella grass. Grown for its aromatic oil.
Cymbopogon citratus, Stapf.	The lemon grass, grown for the lemon grass oil.
Brachiaria distachya, Stapf.	Annual herb, a fodder grass.
Panicum miliare, Lamk.	"Chama." An annual procumbent herb cultivated for the grains. A good fodder.
Panicum psilopodium, Trin.	An erect herb, growing in salt swamps.
Pennisetum typhoides, Stapf.	A herb cultivated for its edible grains. "Pearl millet."
Cenchrus ciliaris, Linn.	An annual or perennial herb.
Oryza sativa, Linn.	Paddy. An annual herb cultivated for rice.
Bambusa arundinacea, Willd.	The thorny bamboo.
Ochlandra travancorica, Gamble.	Reed-like woody shrub with erect culms.

FAUNA

Compared with Trivandrum or Kozhikode or Quilon Districts, Ernakulam District has a narrower stretch of sea coast, the greater part of the District being inland. Yet it has an abundant back water system adjoining which are vast areas of paddy fields which are subject to inundation and movements of water in accordance with the ebb and flow of the tides—conditions which favour a large and varied fish population and wading and water birds. A great portion of the Western part of the District is thus naturally low lying, sandy or clayey and it is only to the Eastern

stretches that we get hills and forests with their characteristic fauna as in Moovattupuzha and Thodupuzha.

The Mammals are represented by the monkeys, carnivores, elephants, ungulates, bats and Insectivores; also Porpoises in the back waters.

Primates

The commonest monkey is the Bonnet Monkey, *Macaca radiata* (Mal. Vella korangu) found in the low country and in the thickets while the Lion tailed monkey, *M. Silenus* is found in the forested areas to the east. *Kasi Johnii*, the Langur (Mal. Karimkorangu), appears to be rare confining itself to the dense forests. The curious slender Loris which is closely related to the monkeys is also found only in the dense forests.

Carnivora are the typical carnivorous mammals or beasts of prey and are represented by the Cat and the Dog tribes. The larger carnivores are confined to the forest areas where they form a source of danger to the hill cultivators and their cattle; but the smaller cats like *Prionaulurus* (the Leopard Cat) and the Jungle Cat (*Felis chaus*) are fairly common all over; they feed on small mammals and birds and when near human habitations form a menace to poultry. The civets (Mal; Veruku) are represented by the large civet (*Moschothera civettina*) and the small civet (*Viverricula indica*) both of which are kept in captivity for the sake of the "musk" obtained from them. Closely allied to them are the Toddy Cats or Palm Civets (Mal. Marapatty), *Pardoxurus hermaphroditicus*. It is a nuisance in buildings with ceiling planks as it often chooses to take up its abode in the space between the ceiling and the tiles; from here it goes out at night in search of food—fruits, toddy from tapped palms, small birds etc.

The Mongooses (Mal. Keeri) are very familiar animals represented by three or four species. *Herpestes edwardsii*, steel grey in colour, is the commonest. They feed on rats, lizards, snakes etc. The other species confined to the forests are *H. fuscus* and *H. Smithi* both being known popularly as Chen Keeri. All these have similar habits. They are immune to snake poison to a certain extent, though not absolutely, as popularly believed. They are very skilful in successfully attacking snakes of even the most venomous types. They

are able to do this mainly by their extreme agility in evading bites, leaping to a side as the snake strikes and rushing to seize the head of the snake before it can strike again. This is also helped to a certain extent by the stiff erectile hairs which cover the body giving it an exaggerated bulk which makes the snake strike short and miss which gives the Mongoose its chance.

The Dog tribe is represented by the Jackal and the wild dog. The Jackal (*Canis indicus*) is widely distributed through out the District whereas the Wild Dog (*Cyon deccanensis*) is confined to the forests. The Sloth (*Melursus ursinus*, Mal. Karadi) is common in the hills and wooded forests. It is feared by the villagers who enter the forests for collecting fire wood as it has the habit of remaining quiet and unobserved on a tree trunk and suddenly attacking man, unprovoked.

Lutra vulgaris is the otter (Mal. Neer Nai). It is the only aquatic carnivore in this area and was once abundant along the banks of the backwaters and rivers but now rather scarce.

Ungulata are hoofed animals and are well represented. *Bibos gaurus* is the Gaur (Mal. Kattupothu) sometimes called the Indian Bison. It is a majestic and imposing beast and was fairly common in the shaded forests of the Eastern regions but is getting reduced in numbers.

The Deer tribe is characterised by the antlers or branching solid horns borne by the meals. Three or four species of deer are fairly common. *Rusa unicolor*, the sambur is the largest and best known (Mal. Kalaman or Mlavu) confined to dense forests. *Muntiacus muntiac* is the Barking Deer so called because of the similarity of its sound to the barking of a dog. *Axis axis* is the beautiful Spotted Deer or Chital (Mal. Pulliman). The smallest deer is *Moschiola meminna*, the mouse deer, or the Indian Chevrotain (Mal. Kezhaman). It attains to only about ten inches in height and though fairly common, is rarely met with, due to its nocturnal and shy habits.

The only wild goat in this region is the Nilgiri Tahr (Mal. Kattadu) *Hemitragus hylocrius* which was once common but is now fast disappearing. It is a most interesting type as its nearest relatives occur only in the Himalayan Ranges.

Sus cristatus is the Indian Wild Boar (Mal. Kattu Panni). It is abundant all along the foot hills and adjoining valleys

where there is cultivation. In the latter places they do immense harm.

The Elephants are plentiful in the forests. They usually confine themselves to the denser forests but in the rainy season they descend to the cultivated slopes in herds and do considerable harm to cultivation.

Among the little known and yet interesting small mammals the following may be mentioned:—

1. *Manis pentadactyla*, the Pangolin or scaly Anteater (Mal. Alunku), is fairly common in the jungles and forests but rarely met with. The body is covered over by large rhomboid scales arranged in an imbricating manner. Limbs are short and claws powerful and curved inwards. Its gait is clumsy but is an expert burrower living in holes and burrows where it hides during the day. It is of nocturnal habits and if during the nocturnal wanderings it is surprised, it rolls up its body presenting the sharp edged scales on all sides defying its enemies.

2. The Common Hedgehog is *Paraechinus nudiventris* occurring all over the land but this again being completely nocturnal in habits, is seldom met with.

3. The Bats, the flying mammals, are well represented. The large fruit eating bat, *Pteropus* is a very common animal with local distribution; and where they do occur they are seen in large numbers. They are called Flying Foxes. They rest during the day hanging from the branches of trees in numbers; during the nights they fly about and do considerable injury to fruit gardens. The commonest of the insectivorous bats is *Vesperugo abramus*, the Indian Pipistrelle, (Mal. Narachil). During day it hides in holes in trees or crevices of roofs, uninhabited houses, caves etc., and flies out towards nightfall, frequently entering houses in search of mosquitoes, gnats etc. The ability of these little bats to fly amongst all kinds of obstacles without knocking against any has been noticed by every one; but it is only in recent years that it has become known that they are able to do this by a type of "radar" like arrangement. While they fly they emit a shrill supersonic sound which is reflected back from the objects around and they have highly sensitive sense organs to detect these. Once again we see that man has been forestalled by the animal creation in his latest of discoveries!

4. The gnawers or Rodents are a familiar group including the rabbits, hares, porcupines, squirrels, rats and mice. They are distinguished by the two large chisel shaped incisor teeth in each jaw followed by a long gap devoid of any teeth. These incisors grow throughout life in adaptation to their gnawing habits which cause great wear and tear on them. The most familiar are the squirrels represented by the common palm squirrel or stripped squirrel, *Funambulus palmarum* (Mal. Annan). It is a beautiful elegant little creature with three cream coloured, stripes along the back and a long bushy tail, moving about among trees and making loud persistent chirrups. There are a few other types of Squirrels but they are confined to the hills and forests. *Ratufa indica* is the large Indian forest squirrel (Mal. Malayannan). The large flying Squirrel *Pteromys oral* is found in the dense forests; it occasionally descends to the plains and does considerable harm to developing coconuts. Popularly it is known as *Paran*. *Petinomys* is the smaller flying squirrel.

Rats and mice are only too common and pestilential.

Mus rattus is the common Indian Rat that has established itself as a most troublesome household pest. *Mus musculus* is the common mouse. *Bandicota malabarica* is the notorious bandicoot (Mal. Thurappan or Panni eli) doing great harm to gardens especially to tuber crops. *Gerbillus indica* is the antelope rat which is characterised by longer hind limbs giving it the appearance of a miniature Kangaroos It leaps well; it is subterranean and nocturnal and burrow through underground tunnels destroying the tuber crops

Hystrix leucura is the porcupine confined to hilly tracts and scrub jungle, sometimes wandering into cultivated plains (Mal. Mullen Panni). *Lepus nigricollis* is the common hare found in jungles.

Aquatic mammals (Cetacea) are represented by the Dolphins and Porpoises in the backwaters especially near the Cochin Bar and the stray whales that have been stranded on those shores. The common dolphin (*Delphinus delphis*) and the little porpoise (*Phocoena shocoenoides*) occur in the Cochin Harbour and their playful gambols as they appear to "roll" on the surface waters are familiar sights. They are called locally Kadalpanni.

BIRDS (AVES)

The Bird fauna is rich and varied. The birds listed in the accounts of the Trivandrum and Quilon Districts occur here too. Some of these may be noted according to their most favourite habitats.

A. The common birds seen around human habitats and cultivated areas are:—

1. *Corvus macrorhynchus*—the Jungle crow.

2. *Corvus splendens*—the House crow.

3. *Dendrocitta*—the Tree pie called locally oala gnaly as it has the habit of hanging on to the leaflets of the coconut palms, evidently picking up noxious insects from them.

Dicrurus—the King Crow or the Drongo, and *Dissemurus*—the racquet tailed king crow, are active birds locally known as Kakka thampuratty. They are regular insect feeders and thus help to keep down insect pests.

Turdoides are the commonest of the Babblers or seven sisters lorally called Kari ila pakshi.

Pycnonotus is the Bulbul. Two species of Bulbuls are common—the Redvented Bulbul characterised by a scarlet patch on the underside of the base of the tail and the Red whiskered Bulbul with a cap of feathers on the top of the head. They are called locally Irata Thalachi or Thoppi Thalachi.

Copsychus saularis is the familiar magpie Robin common near human habitations (Mal. Mannathi Keechi). It has a sweet song.

Tchitrea paradisi is the Indian Paradise Flycatcher. The female is chestnut red with black head. The young males also are of this coloration but as they attain sexual maturity they are white in colour with the head black and with a pair of long white feathers sticking out from the tail.

Orthotomus sutorius (the Tailor bird) is the most familiar of the warblers. It is a tiny plain greenish brown bird with a remarkably loud voice continuously repeating its loud call, "To-wee-To-wee" which may be heard in any garden. Its nest is a wonderful structure. It is formed of growing leaves, the edges of which are drawn together by means of cotton or other fibre.

Oriolus kundoo is the Indian Oriole commonly known as the Mango bird, locally called Manja kili. It is a bright yellow bird with pink beak and red eyes. Another species, perhaps more common is *Oriolus Xanthromus*, the Black headed Oriole which differs from the former in having the head, chin and throat black. They have a rich soft mellow note.

Acridotheres tristis, the common Myna, is a very common bird in lawns, hunting after grasshoppers. When in numbers they are very noisy and quarrelsome. However, it is easily tamed and in captivity can be taught to talk. The Jungle Myna *Aethiopsar fuscus* also is teachable.

Centropus sinensis is the Crow Pheasant or concal. It is a common bird with a black body and chestnut red wing. It is essentially a ground bird picking up prey from the ground or low bushes and taking to wing only when forced to; but it can fly well. In Malayalam it is called Ooppan.

Eudynamis scolopaceus, the Indian Koel, is well known for its loud and repeated notes when it becomes active as the hot season advances. The male is jet black while the female is spotted.

Pitta brachyura is the Indian Pitta with a bright plumage coming into the gardens during winter. It is a migratory bird.

Brachypternus bengalensis, the Golden backed wood pecker, moves about along the trees searching for insect prey. They are skilled climbers but their flight is undulatory and accompanied by their harsh cries.

Megalaima haemacephala, the crimson breasted barbet, is another tree haunting bird with a persistent monotonous repeated call which may be expressed as '*Tonk—Tonk*'. This metallic ringing sound resembles the sound of a hammer tapping on metal and so the bird is popularly known as the copper smith. A near relation of this, the small green barbet (*M. viridis*), is also common among the foliage of trees.

Cinnyris zeylanica, the sun bird, is perhaps the most pretty of our garden birds, called also honey suckers. The female is rather dull yellowish in colour but the male is a most beautiful bird shining in glorious metallic colours as they flit from flower to flower.

Motacilla lugubris is the Pied Wagtail. It is a fine singing bird and may be seen perched on a convenient branch or house top pouring forth its sweet melody.

Some other birds are met with in open plains or bushes somewhat away from human dwellings. Such are the Larks. They are more often heard than seen. *Alauda gulgula* is the Indian skylark often heard both in the low country and in the hills. The Indian Pipit (*Anthus richardi*) frequents open grass land and paddy fields after harvest in large numbers.

Ploceus baya is the well known weaver bird. It is a gregarious bird associating in large numbers near paddy fields and other cultivation. They build wonderfully fine nests which have evoked man's admiration from early times.

Parakeets. Flocks of Rose ringed Green Parakeet (*Psittacula krameri*) may be seen feeding on fruits or rapidly flying in search of food and uttering shrill cries as they fly. In the lower elevation and at the foot of the hills another Parakeet (*P. cyanocephala*), the Blossom headed parakeet, is more conspicuous, again going about in flocks. As one ascends the hills these gradually disappear and in their place flocks of Blue winged Parakeet (*P. columboides*) and the Malabar Loriquet or the Love Bird (*Coryllis vernalis*) of small size and green colour, appear.

Coracias bengalensis, the Indian Roller or Blue Jay, is a brilliantly coloured bird, but the colours are seen only when the bird is in flight.

Merops orientalis, the Bee eater, is another brightly coloured bird seen in open country perched on high turfs, or telegraph wires from where they make sallies into the air after insect prey.

Halcyon smyrnensis is the commonest of the king fishers. It is also a gorgeously coloured bird, with white breast, chestnut brown head and bright blue back and wings. Being more an insect feeder, it is often seen in places far away from water. In contrast to this is the common king-fisher, *Alcedo atthis*, found near the banks of every stream or tank, looking for fish, to which its diet is restricted.

Upupa epops is the common Hoopoe, an elegant ground feeding bird, which has a characteristic crest of feathers on the head.

Among the thrushes the most notable is the Malabar whistling thrush or the idle school boy (*Myiophoneus*) found in the hills, especially in the neighbourhood of swift flowing torrential streams.

The birds of prey are the Falcons, Eagles, Kites, Hawks and Vultures. *Astur badius* is the commonest of the Falcons. *Spizaetus cirrhatus* is the crested Hawk Eagle. *Pseudogyps bengalensis* is the common vulture. The most familiar birds of prey however are the Kites—the Brahminy Kite (*Haliaster indus*) and the Pariah Kite (*Milvus govinda*). In Malayalam they are Krishna parunthu and Chacki Parunthu respectively.

The *Owls* are nocturnal birds of prey. The spotted Owlet (*Athene brama*) (Mal. Nathu.) comes out from its hiding places pretty well before sunset and makes characteristic chuckles and squeaks. Other owls are the collared scops owl (*Otus bakkamaena*) and the Brown Wood Owl (*Strix indranee*). The fish owl (*Ketupa zeylonensis*) (Mal. Ooman.) is found along the sea coasts. The Brown Hawk Owl (*Ninox scutulata hirsuta*) can be frequently heard at night on the hills. These owls help to keep down various vermin like snakes, mice, rats, etc., which too are nocturnal in habits. In the forests a large and heavily built Eagle Owl (*Huhua nepalensis*) is found which at certain seasons frequents adjoining low country frightening the villagers with its weird shrieking cries bursting forth at the dead of night.

The Rock Pigeon (*Columba livia*) is fairly common in the low country. On the hills the whistle of the grey fronted Pigeon, *Dendrophassa pompadora*, may be heard. At the foot of the hills and in the low country adjoining them are to be seen the beautiful Emerald Dove, *Chalcophaps indica*, known locally as "Omana Pravu" and the Indian spotted Dove, *Streptopelia Chinensis* called locally "Kurutu Pravu".

Game birds are represented by the Jungle Fowl (*Gallus sonneratii*) common in the jungles. The Quails occur in the hilly tracts and are called "Kada"; their flesh is very much relished and are caught in large numbers. Water hen called "Kula Kozhi" (*Amaurornis*) occurs near any

fairly large body of water affording sufficient cover along its banks. Snipes are common in the low country in the vicinity of marshes and backwaters and afford sport in winter.

Water birds. The Terns (*Thalasseus*) called Kadal kakka, are winter visitors and as the season approaches numbers of them may be seen along the backwaters. In the paddy fields and old tanks the paddy bird (*Ardeola grayii*), also called the pond heron, is common. The small chest nut bittern (*Ixobrychus cinnamomeus*) and the black bittern (*Dupetor flavicollis*) are fairly common along the lakes and backwaters while the yellow bittern (*Ixobrychus Sinensis*) is the commoner species.

The Ducks are represented by the Teals (Mal. Eranda) which are winter visitors and occur along the backwaters at the particular season.

Reptilia

The Reptiles are represented by the Lizards, Snakes, Crocodiles, Turtles and Tortoises.

Lizards (Lacertilia). Several species of lizards are found in this area but the most familiar are the Geckos represented by the House Lizard (*Hemidactylus*). They climb up smooth vertical walls and with equal facility walk or run after prey on the underside of ceilings with the help of the remarkable suctorial lamellae on the underside of the toes. It is nocturnal in habits and being an insect feeder helps to keep down noxious insects that enter the houses. Its tail is easily broken off but is soon regenerated. A closely related species is seen on trees and bushes showing protective colouration. Other common lizards are the following:—

Calotes versicolor—the Garden Lizard.

Calotes ophimachus—the Green Lizard.

Sitana pondiceriana—the Brown Lizard seen in open dry land.

Chameleon zeylanicus—the chameleon—a true arboreal Lizard.

Draco—the Flying Lizard, or Flying Dragon found in open plantations of Coconut and Areca palms but very restricted in its distribution.

Mabuia carinata—the common Skink. (Mal. Arana).

Varanus bengalensis—the Monitor Lizard(Mal. Udumpu).

Snakes (Ophidia).

Several species—about seventy—have been recorded from this area. They come under various families most of which are non-poisonous or only slightly so; the poisonous species are confined to two families, viz., the *Colubridae* and *Viperidae*. In the former many are non-poisonous while in the latter all are poisonous. The common non-poisonous snakes are the following:—

Typhlops brahminus——a common small burrowing snake about the size of an earthworm and feeding on them.

Python molurus (Mal. Malampampu or Perumpampu) is the common Python which attains to a huge size and feeds on small and medium sized mammals.

Ptyas mucosus—the Rat snake (Mal. Chera) is one of the commonest snakes in the low country. It is an active snake and often gets into human dwellings.

Lycodon—the Wolf Snake. This is a common snake characterisd by alternating dark and light bands quite resembliing a poisonous snake, the Krait, for which it is often mistaken.

Nerodia piscator is the common fresh water snake called locally Neer-koli or Pulavan.

Coluber helena—is a non-poisonous snake met with in the hills.

Chersydrus granulatus is found in the backwaters.

Dendrophis is the Brown tree snake.

Dendrelaphis is the Green tree snake.

Dryophis is the whip snake living among foliage.

Chrysopelia Ornata is a beautifully coloured snake seen in the forests; it is reported to be able to leap across short distances.

The common poisonous snakes are the following—

Naia naia is the cobra found in the forests and in the low country.

Naia hannah—the Hamadryad or King Cobra—large and powerful Cobra found in the forest areas.

Hemibungarus is the Indian Coral snake, allied to the Cobras and confined to the hilly tracts.

Bungarus candidus is the Krait.

Enhydrina valakadien, *Hydrophis spiralis* and *Enhydris curtis* are all sea snakes with flat oar like tails. They are all highly poisonous.

Vipera Russelli is the largest and most deadly of the Vipers found in the hills and in the low country.

Trimeresurus macrolepis is a pit viper, arboreal in habits and confined to the hills.

Crocodilia—the crocodiles. Once they were abundant in the backwaters and tanks but now their numbers have dwindled considerably. Two species occur in this area.

1 *Crocodilus porosus* (Mal. Muthala). This is the larger Crocodile living in the estuaries and back waters. It occasionally swims out into the sea.

2 *Crocodilus palustris* (Mal. Cheenkanni). This is a smaller species found to occur in fresh water lakes, large tanks and rivers.

Chelonia. These are the Turtles and Tortoises. The common Turtles seen in our seas are the following:—

1 *Chelone mydas*, the Green Turtle.

2 *Eretmochelys*—the Hawk's Bill Turtle.

3 *Dermochelys*, the Leathery Turtle, the largest of the turtles in this region.

Common tortoises which are much smaller than the above and are found in fresh water bodies or on land, are the following:—

1 *Geoemyda trijuga* is the fresh water tortoise, dark in colour and so, called in the vernacular, Kar-ama. The dorsal carapace which is hard is marked by three longitudinal ridges.

2 *Lissemys punctata* and *Pelochelys* are fresh water tortoises where the characteristic epidermal armour is completely absent. So they are soft to the touch and are locally called "Paal—ama". They are highly flattened animals. The former is confined to tanks and wells while the latter is the familiar river tortoise.

3 *Testudo travancorica* is the land tortoise found in the hills and forests.

AMPHIBIA

These are the frogs, toads and caecilians. The tailed Amphibia, urodela, are completely absent from South India. The Frogs that are commonly met with are:—

1 *Rana hexadactyla*, the common frog seen in tanks, paddy-fields and all bodies of fresh water.

2 *Rana tigrina* is the Bull frog, much larger than the above. The hind legs of these are now preserved and sent abroad as it is a highly relished meat in certain countries and thus brings in foreign exchange.

3 *Rana cyanophlictis* is a smaller frog in marshy land which makes a clear metallic tinkling sound during the rainy season.

4 *Rhacophorus* is the pale coloured frog which can make long leaps and so is popularly called flying frog. Its long digits are provided with suckers which help them to cling to walls, trunks of trees, etc., as they make their leaps.

5 *Cacopus* is the burrowing frog. In adaptation to this hibitat it has short limbs and small pointed head with projecting snout. It has the power to take in air and swell up its body to frighten away the enemies.

Common toads are:—

1 *Bufo melanostictus* is the common toad with a dry and warty skin. It feeds on insects mainly and thus helps to keep them down.

2 *Bufo parietalis* is the toad found in hills and forest areas.

The legless amphibia (Apoda) found in this area are:—

1 *Ichthyophis glutinosus*

2 *Uraeotyphlus*

3 *Gegenophis*

All these occur in the damp soil near streams, rivers, paddy fields, etc. Being legless and elongated, moving about by wriggling of the body, they are frequently mistaken for snakes.

FISHES (Pisces)

Common fishes are divided into two groups—the cartilaginous fishes where the skeleton is permanently of cartilage, no bone being formed and the bony fishes where the skeleton is of bone.

Common cartilaginous fishes are:—

1 *Scoliodon—the Dog fish.* (*Mal. Kutti Sravu*). This is a viviparous fish, the young being born alive.

2 *Chiloscyllium—Dog fish* (*Mal. Kuttisravu*). It lays eggs in special eggcases which have chitinous tendrils from their corners. By these tendrils they are attached to sea weeds. They are called popularly 'Mermaid's purses'.

3 *Stegostoma tigrinum.* The tiger shark, so called because of the stripes on its body.
4 *Pristis.* Saw fish (Mal. Komban Sravu)
5 *Rhinobatus* and *Rhynchobatus* are the skates.
6 *Narcine*—the Electric Ray.
7 *Trygon*—the Sting Ray.
8 *Aetobates*—the Eagle Ray.

Bony fishes of food value are the following:--

1 *Lates Calcarifer*—Mal. Narimeen.
2 *Serranus*—Mal. Chempalli.
3 *Ambassis*—Mal. Choora.
4 *Therrapon*—Mal. Para.
5 *Pristipoma*—Mal. Para.
6 *Upenoides*—The Goat fish.
7 *Chanos*—White Mullet Mal. Poomeen.
8 *Sciaena*—Jew fish Mal. Kora.
9 *Polynemus*—Indian Salmon.
10 *Otolithus*—Mal. Pallikora.
11 *Sphyraena*—Mal. Chelavu.
12 *Trichiurus*—Ribbon fish—Mal. Chunnampu Vaala
13 *Rostrelliger*—Mackercl—Mal. Ila.
14 *Cybium*—Seer fish—Mal. Neymmeen.
15 *Stromataeus*—Promfret. Mal. Avoli.
16 *Caranx*—Horse Mackerel. Mal. Para.
17 *Equula*—Silver belly—Mal. Paral.
18 *Ophiocephalus*—Snake head fish—Mal. Viral.
19 *Belone*—Garfish Mal. Kolan.
20 *Hemirhamphus*—Garfish Mal. Kolan.
21 *Cynoglossus*—Sole or Flat fish—Mal. Nanku, Nakku
22 *Synaptura*—Sole or Flat fish—Mal. Nanku.
23 *Arius*—Cat fish—Mal. Etta, Kuri.
24 *Wallago*—Cat fish—Mal. Atti Vaala.
25 *Chirocentrus*—Dorab—Mullu Vaala.
26 *Clupea*—Oil Sardine—Chala or Matthi.
27 *Engraulis*—Sardine—Mal. Chala, Manangu.

28 *Anabas*—The climbing Perch—Mal. Undikalli.
29 *Anguilla*—Fresh water eel--Mal. Pampu Meen.
30 *Etroplus*—Pearl Spot—Mal. Karimeen, Pallathi.
31 *Thynnus*—Tunny—Mal. Choora.

There are other bony fishes which are not of any food value but have interesting features of adaptation and ways of life. Some of these are mentioned below:—

1 *Echineis*—Sucker fish—Mal. Ottumeen. Appukuttan.
2 *Hippocampus*—Sea horse—Mal. Kadal Kuthira.
3 *Syngnathus*—Pipe fish.
4 *Holocanthus*—Butterfly fish or Angel fish.
5 *Exocoetus*—Flying fish.
6 *Aplocheilus*—Minnow—Mal. Poochutti.
7 *Macropodus*—Frog fish.
8 *Gobius*—Gobies.
9 *Salarias*—Blennies or Rock Skippers.
10 *Muraena*—Marine eel.
11 *Dactylopterus*—Flying Gurnard.
12 *Tetradon*—Puffer fish.
13 *Diodon*—Sea hedgehog.
14 *Antennarius*—Angler fish.
15 *Ostracion*—Cow fish
16 *Pterois*—Scorpion fish
17 *Uranoscopus*—Stargazer.

Among the lowest chordates (Protochordata) we have the lancelets (*Amphioxus*), Tunicates such as *Herdmania*, *Salpa*, *Botryllus*, etc.

THE INVERTEBRATES

These are lower organisms without a backbone and range from the simple single celled protozoa to such highly organised animals as the Arthropoda and Mollusca. The Sponges (*Porifera*) are abundant along the coasts and the fresh water sponge *Spongilla* is common in the numerous tanks especially in the lowlands.

The *Coelenterata* are represented by the several species of Anemones, Coral organisms, Gorgonians, Antipatharians, Hydroids, Polyps, Medusa or Jelly fishes, comb jellies, etc. The *Annelida* are represented by the polychaets or marine bristle worms, tube dwelling worms, leeches, etc. The land leech *Haemadipsa* is a menace in the hill plantations

especially during the rainy season. The large phylum *Arthropoda* is well represented. Among the *Crustacea* are the prawns which are exported in large quantities while several types of prawns and lobsters are used as food locally. The *Myriapods* are represented by the centipedes and millipedes of which several species are present. The largest group in the Arthropoda, however, is the *Insecta* which are of considerable economic importance as they affect the welfare of man in some way or other.

Insects injurious to cultivation

Grass hoppers and locusts are destructive to plants in general. Species of Thrips are pests on many cultivated plants.

Bugs—*Coptosoma* feeds on leguminous plants.

Aspongopus is destructive to cucurbitaceous plants.

Leptocorissa is the notorious pest of paddy.

Helopeltis is a pest in Tea plantations. Scale insects, mealy bugs, Aphids, etc., are all very injurious to plants.

Beetles—*Oryctes*—The Rhinoceros beetle is a serious pest of the coconut palm.

Rhynchophorus—is the palm weevil.

Lepidoptera—*Nephantis* is a moth whose caterpillar is a pest of the coconut palm eating its leaves.

Spodoptera is the Rice Swarming Caterpillar injurious to paddy cultivation.

Termites or white ants are injurious to plants, wood work, etc.

Insects destroying stored products, grains, etc.

Calandra is a beetle whose grub bores into pulses, grains etc.

Tribolium is a beetle whose grub lives in flour feeding on it.

Corcyra is a moth—whose caterpillar feeds on flour.

Sitotroga is the moth whose carterpillar bores into stored paddy—it is the "white-fly" of granaries.

Insects serving as transmitters of disease germs

Sandfly (*Phlebotomus*) common in moist shady places is suspected to be the vector of certain Leishmaniasis.

Mosquitoes—*Anopheles* transmitting malaria.

Culex and *mansonoides* transmitting 'filaria'.

House fly is a transmitter of many germs such as of Dysentery, Cholera, etc.

Insects useful to man

Some feed on injurious insects, eg., Dragonflies feed on mosquitoes and gnats. *Chrysopa* and *Hemerobius* and Syrphid grubs feed on Aphids and Scale insects. *Rodolia*, and *Scymnus* feed on Aphids, Scale insects and mealy bugs. Tiger beetles hunt and eat other noxious insects. Some wasps use other insects as food. Others are parasitic on injurious insects, eg., the tiny wasp *Trichospilus pupivora* parasitises and thus destroys the pupae of the coconut defoliator—*Nephantis Serinopa*. Some yield valuable products like the lac insect (*Tachardia lacca*) and the Honey bees. The *Arachnida* are represented by the Spiders and scorpions of which several species are met with.

The *Mollusca* are well represented in this area. The backwaters and coasts teem with Oysters; in the backwaters and estuaries large quantities of clams (*Meretrix* and *Villorita*) are found and are fished in large quantities. Their flesh is eaten while the shell is used for making lime and cement.

Sepia and Octopuses are fairly common. Octopuses ascend the backwaters and estuaries during the summer and have been met with far inland.

Echinodermata

This is an interesting group of spiny skinned animals confined to the sea—they are not seen even entering the backwaters. They have not been fully studied. They include the star fishes, Brittle stars, Echinoids or sea urchins, Holothurians or Sea cucumbers and the crinoids or the Sea Lilies.

CLIMATE

The District has a tropical humid climate, with an oppressive hot season and plentiful seasonal rainfall. The hot season from March to May is followed by the south-west monsoon season from June to September. October and November form the post-monsoon or retreating monsoon season. The period from December to February is generally dry.

Rainfall

Records of rainfall in the District are available for eleven stations for periods ranging from 26 to 82 years. Tables I and II give the details of the rainfall at these stations and for the District as a whole. The average annual rainfall in the District is 3,431.3 mm. (135.11"). The rainfall in general increases from the coast towards the interior in the District. The rainfall varies from 2,482.6 mm. (97.74") at Alangad in the north-western part of the District to 5,883.5 mm (231.63%) at Neriamangalam at the foot of the Western Ghats. The south-west monsoon generally sets in during the last week of May. The rainfall in the south-west monsoon months June to September constitutes about 68% of the annual total. June and July are the rainiest months when 45% of the annual rainfall is received. The rainfall gradually decreases after July. A good amount of rain, mostly as thundershowers, occurs in May and in the post-monsoon season. The variation in the annual rainfall from year to year is not large. During the fifty year period 1901 to 1950, the highest annual rainfall, amounting to 141 per cent of the annual normal, occurred in 1924 while 1905 was the year with the lowest rainfall which was 71% of the normal. In the same fifty year period, rainfall less than 80% of the normal occurred only in 6 years out of which two years were consecutive. The annual rainfall in the District was between 3,000 and 2,800 mm. (118.11" and 149.61")in 31 years out of fifty as will be seen from Table II.

On an average there are 139 rainy days (i.e. days with rainfall of 2.5 mm or more) in a year.

The heaviest rainfall in 24 hours recorded at any station in the District was 305.8 mm. (12.04") at Karikode on 1924 July 23.

Temperature

There are two meteorological observatories in the District, one at Fort Cochin and the other at Willingdon Island within a few miles of each other. The data on temperature and other meteorological conditions at Fort Cochin which are available for a long period of years may be taken as representative of the climatic conditions in the District, in general. Temperatures begin increasing after February, March and April are generally the hottest months when the mean daily maximum temperature is 31.3° C (88.3°F) and the mean daily minimum 25.8° C (78.4°F) in the coastal region. In the interior of the District

the day temperatures may be a little higher. With the high moisture in the air the heat in summer is oppressive, particularly in the interior parts of the District. In the coastal regions, the sea breezes in the afternoons give considerable relief from the heat. Afternoon thunder storms which are common in April and May also lower the temperatures to some extent. With the onset of the southwest monsoon by the end of May, day temperatures decrease slightly and the whole of the monsoon season is more pleasant. After the end of September day temperatures increase gradually, and the heat in the post monsoon and northeast monsoon seasons are nearly as intense as in summer. The highest maximum temperature recorded at Cochin is 33.9°C (93.0° F) on February 26, 1945, March 28, 1949 and April 23, 1957. The lowest minimum temperature recorded is 17.8°C (64.0°F) on January 4, 1929.

Relative Humidity

The air is highly humid throughout the year, the relative humidity being generally over 70%. But in the interior regions the afternoon himidities in the period December to March may be slightly less than in the coastal regions.

Cloudiness

Skies are heavily clouded to overcast in the southwest monsoon season. In May, the post monson season and on a few days in December, skies are generally moderately to heavily clouded. In the other months clear or lightly clouded skies are common.

Winds

Winds are generally light to moderate with some increase in force in the summer and monsoon seasons. In the period January to May winds strengthen in the afternoons. In the southwest monsoon season the winds are mainly westerly or northeasterly. During the rest of the year winds are northeasterly to easterly in the mornings and blow from directions between southwest and northwest in the afternoons.

Special Weather Phenomena

Thunderstorms are frequent in the summer months and the post monsoon and early northeast monsoon seasons. Occasional squalls occur in association with thunderstorms in the late summer.

Tables III, IV and V give the temperature and humidity, mean wind speed and frequency of special weather phenomena respectively for Cochin.

TABLE

NORMALS AND

Station	No. of years of data		January	February	March	April	May	June	July	August
1	2		3	4	5	6	7	8	9	10
Ernakulam (Dist.)		**a**	**17.4**	**21.2**	**50.9**	**126.1**	**291.5**	**772.9**	**770.3**	**493.7**
		b	**0.9**	**1.1**	**2.9**	**7.1**	**12.0**	**25.1**	**25.8**	**21.5**
Malayattur	46	a	15.2	15.5	58.4	159.2	289.6	782.3	769.9	560.8
		b	0.8	1.0	3.3	8.0	13.1	25.0	27.1	23.9
Parur	50	a	9.7	10.4	22.1	72.1	244.9	672.3	626.6	376.9
		b	0.4	0.6	1.3	3.9	9.4	23.4	23.0	17.5
Perumbavur	50	a	14.7	14.2	41.7	130.8	272.8	772.4	794.5	524.0
		b	0.7	0.8	2.7	7.1	10.9	25.4	26.3	22.6
Alwaye	35	a	12.7	12.5	29.0	97.3	281.7	794.5	730.5	473.5
		b	0.7	0.8	2.1	6.0	10.4	25.6	25.5	21.9
Nerlamangalam	16	a	26.4	66.8	118.4	221.0	508.8	1154.4	1357.4	881.6
		b	0.9	2.3	4.9	11.6	15.9	27.0	28.6	25.9
Moovattupuzha	50	a	18.0	16.0	50.5	141.0	285.5	716.8	755.7	533.7
		b	1.0	1.0	3.2	8.5	12.3	24.0	26.3	22.4
Karikode	50	a	27.9	31.5	76.7	188.5	323.1	760.0	791.5	567.7
		b	1.4	1.5	4.9	10.9	15.2	25.6	27.2	24.0
Ernakulam	50	a	14.2	20.3	40.4	107.2	282.5	744.7	633.2	413.8
		b	1.0	1.1	2.6	6.5	11.7	25.1	24.6	20.7
Fort Cochin	50	a	23.4	25.4	52.3	113.5	301.7	731.3	614.2	379.7
		b	1.1	1.4	3.0	6.3	12.4	24.9	24.5	19.3
Mattancherri	18	a	25.4	14.0	48.3	105.7	289.3	762.7	696.7	373.6
		b	1.3	1.1	2.6	5.3	11.7	25.1	24.3	19.2
Alangad	15	a	4.3	6.9	22.6	56.4	126.2	610.6	703.3	344.9

(a) Normal rainfall in mm.
(b) Average number of rainy days (days with rain of 2.5 mm. or more)
* Based on all available data up to 1956
** Years given in brackets

—I

EXTREMES OF RAINFALL

September	October	November	December	Annual	Highest annual rainfall as % of normal & year**	Lowest annual rainfall as % of normal & year**	Heaviest rainfall in 24 hours* Amount (mm.)	Date
11	12	13	14	15	16	17	18	19
284.3	**345.3**	**206.2**	**52.0**	**3431.8**	**141 (1924)**	**71 (1905)**		
15.0	**14.9**	**9.7**	**2.7**	**138.7**				
292.9	349.1	202.2	52.6	3535.7	131 (1946)	72 (1945)	234.2	2-10-1937
16.3	15.8	10.1	2.7	147.1				
229.1	251.2	151.6	32.0	2689.9	170 (1924)	51 (1935)	230.4	24-7-1910
12.2	11.3	7.4	1.5	111.9				
298.7	351.3	216.1	47.2	3478.4	149 (1924)	68 (1934)	238.0	23-7-1924
15.5	14.8	9.5	2.8	139.1				
287.3	280.9	188.0	40.6	3228.5	149 (1924)	72 (1921)	215.9	6-6-1924
14.8	13.6	8.9	2.4	132.7				
434.9	636.8	373.1	103.9	5883.5	232 (1950)	76 (1935)	191.0	8-8-1942
18.0	18.7	14.2	3.9	171.9				
297.2	353.1	229.1	60.5	3457.1	147 (1924)	62 (1905)	293.4	23-7-1924
15.9	16.5	11.0	3.4	145.5				
317.7	413.5	250.9	57.4	3806.4	149 (1924)	57 (1908)	305.8	23-7-1924
16.5	18.0	11.6	3.2	160.0				
267.2	335.3	153.9	49.0	3061.7	161 (1924)	68 (1935)	207.3	17-11-1939
14.2	14.4	9.0	2.7	133.6				
244.1	326.1	186.9	48.0	3046.6	138 (1924)	67 (1918)	263.2	28-5-1933
14.2	13.8	8.8	2.6	132.3				
254.5	290.6	164.1	45.7	3070.6	151 (1916)	65 (1918)	193.0	23-7-1910
14.4	13.6	7.9	2.5	129.0				
204.0	215.9	152.4	35.1	2482.6	169 (1901)	32 (1905)	205.7	13-7-1907

ERNAKULAM

TABLE—II

FREQUENCY OF ANNUAL RAINFALL*

Range in mm.	No. of years	Range in mm.	No. of years
2401-2600	2	3801-4000	1
2601-2800	7	4001-4200	3
2801-3000	4	4201-4400	0
3001-3200	7	4401-4600	1
3201-3400	8	4601-4800	0
3401-3600	8	4801-5000	1
3601-3800	8		

* Based on data for the period 1901-50.

TABLE—III

NORMALS OF TEMPERATURE AND RELATIVE HUMIDITY

(COCHIN)

Month	Mean Daily Maximum Temperature	Mean Daily Minimum Temperature	Highest Maximum ever recorded		Lowest Minimum ever recorded		Relative Humidity 0830	1730*
	°C	°C	°C	Date	°C	Date	%	%
Annual	29.8	24.3					79	77
January	30.4	23.0	33.0	10-1-1955	17.8	4-1-1929	70	63
February	30.6	24.2	33.9	26-2-1945	19.4	1-2-1932	73	68
March	31.2	25.7	33.3	28-3-1949	21.1	19-3-1954	75	73
April	31.4	26.0	33.9	23-4-1957	21.7	7-4-1943	75	75
May	30.9	25.7	33.3	7-5-1952	21.1	15-5-1939	80	79
June	29.0	23.9	32.7	12-6-1958	20.6	17-6-1935	86	86
July	28.1	23.7	31.7	1-7-1959	21.1	8-7-1943	87	87
August	28.1	23.8	32.2	15-8-1929	21.1	8-8-1946	86	87
September	28.9	24.1	31.1	23-9-1955	21.1	5-9-1950	84	84
October	29.2	24.1	32.2	19-10-1930	21.1	13-10-1943	83	80
November	29.8	24.0	32.8	24-11-1957	19.4	29-11-1944	79	75
December	30.2	23.3	32.8	12-12-1957	19.4	14-12-1945	73	67

* Hours I. S. T.

TABLE—IV

MEAN WIND SPEED IN KILOMETRE PER HOUR

(COCHIN)

Month		Mean Wind Speed in km. per hr.
Annual	..	7.7
January	..	6.9
February	..	8.2
March	..	9.2
April	..	9.2
May	..	9.0
June	..	7.9
July	..	8.4
August	..	8.4
September	..	7.7
October	..	6.4
November	..	5.6
December	..	6.1

TABLE—V

SPECIAL WEATHER PHENOMENA

(COCHIN)

Month	Mean Number of Days				
	Thunder	Hail	Dust storm	Squall	Fog
Annual	68.5	.	0.1	0.6	0.8
January	0.4	.	..	..	..
February	0.8	..	.	..	..
March	5.7	..	..	..	..
April	13.9	.	..	..	..
May	14.9	..		0.2	.
June	4.7	..	.	0.2	..
July	1 7	.	..	..	0.1
August	0.7	..	..	.	..
September	2.7	.	0.1	0.2	..
October	11.0	..	.	..	0.1
November	9.5	..	..	..	..
December	3.1	..	..	..	0.6

APPENDIX—I

LIST OF VILLAGES

Taluk		Village	
1	Kanayannur	1	Cheranellur
		2	Kumbalam
		3	Kadamakudi
		4	Mulavukad
		5	Thrikkakkara North
		6	Thrikkakkara South
		7	Edappilli North
		8	Edappilli South
		9	Maradu
		10	Poonithura
		11	Thekkumbhagom
		12	Nadamel
		13	Thrivankulam
		14	Kureekad
		15	Kanayannur
		16	Mulanthuruthi
		17	Amballur
		18	Kulayattikara
		19	Keecherri
		20	Edakkathuvayal
		21	Kaipattur
		22	Manakunnam
2	Kunnathunad	23	Perumbavur
		24	Cheranellur
		25	Asamannur
		26	Mazhuvannur
		27	Aikkaranad North
		28	Aikkaranad South
		29	Chemmanad
		30	Vazhakkulam
		31	Vengur East
		32	Vengur West
		33	Kizhakkambalam
		34	Vengola
		35	Kunnathunad
		36	Rayamangalam
		37	Vadavukode
3	Cochin	38	Pallippuram
		39	Kuzhuppilli
		40	Edavanakkad
		41	Nayarambalam
		42	Njarakkal
		43	Elangunnapuzha
		44	Mattancherri
		45	Palluruthi
		46	Kumbalangi
		47	Chellanam
		48	Remeswaram
		49	Fort Cochin
4	Parur	50	Parur
		51	Vadakkekkara
		52	Puthenvelikkara
		53	Aiyrur
		54	Alangad
		55	Kodungallur
		56	Kottuvalli
		57	Varapuzha
		58	Chennamangalam

APPENDIX—I

LIST OF VILLAGES—(Concld.)

Taluk		Village	
5	Moovattupuzha	59	Varapatti
		60	Poothanikad
		61	Enanellur
		62	Kadavur
		63	Valloorkunnam
		64	Mulavur
		65	Valakam
		66	Moovattupuzha
		67	Arakuzha
		68	Maradi
		69	North Kothamangalam
		70	South Kottapadi
		71	Pindimana
		72	Kuttamangalam
		73	Keerampara
		74	Eramallur
		75	Piravam
		76	Elanji
		77	Ramamangalam
		78	Memuri
		79	Maneed
		80	Thirumaradi
		81	Onakkur
		82	Koothattukulam
		83	Palakuzha
6	Alwaye	84	Alwaye
		85	Chengamanad
		86	Parakkadavu
		87	Malayattur
		88	Manikkamangalam
		89	Manjapara
		90	Kothakulangara South
		91	Kothakulangara North
		92	Vadakkumbhagom
		93	Kizhakkumbhagom
		94	Chowara
		95	Thekkumbhagom
7	Thodupuzha	96	Karikode
		97	Alakode
		98	Velliyamattom
		99	Arakulam
		100	Kudayathoor
		101	Muttom
		102	Thodupuzha
		103	Karimkunnam
		104	Manakad
		105	Purapuzha
		106	Kumaramangalam
		107	Manjallur
		108	Kalloorkad
		109	Karimannur
		110	Udumbannur
		111	Kodikulam

CHAPTER II

HISTORY

Introduction

The Ernakulam District is constituted of territories which once formed part of the princely States of Cochin and Travancore and the District of Malabar which now form the State of Kerala. The history of Ernakulam therefore represents in a sense a confluence of the three major streams of Kerala history which take their source from the regional water-sheds of Cochin, Travancore and Malabar. Whereas the vital portion of the District comprising of the Cochin and Kanayannur Taluks belonged mostly to erstwhile Cochin State, the outlying Taluks of Parur, Alwaye, Kunnathunad, Moovattupuzha and Thodupuzha, barring a few areas, formed part of erstwhile Travancore. Fort Cochin, the headquarters of Cochin Taluk was, however, part of the old Malabar District. In spite of this peculiar territorial composition which invests this District with rich and varied historical experiences and traditions, its history is centred mainly around the rise and growth of Cochin and as such it coincides with the history of the former princely State of Cochin. In this Chapter we shall sketch the main outlines of this history in our attempt to place the Ernakulam District on the historical map of Kerala.

Prehistory and Archaeology

The prehistory of Ernakulam, like that of the other Districts of Kerala, is shrowded in mystery[1]. We have no clear evidence of the palaeolithic man having lived here. H.D. Sankalia makes the following interesting observation in regard to the absence of palaeoliths in Kerala. "Kerala and Malabar have so far not yielded any palaeoliths, probably because no search has been made. But it is likely that here there are ancient sea beaches, as there are further up near Bombay, which on examination might be found

1 For a detailed account of the prehistoric monuments typical of Kerala see *Trichur District Gazetteer*, pp. 65-69

to be implementiferous. Or it may be that the coastal belt is of recent growth. Thus the reasons for the absence of palaeoliths might be truly geographical"[1]. The District, however, forms the central part of the megalithic belt of Kerala which is rich in prehistoric monuments belonging to the neolithic age. The most important of such monuments met with in the area are dolmens[2] and menhirs[3] which contain such relics as bones, stones and other implements, pottery and beads. Though the neighbouring Districts of Trichur and Kottayam possess a larger number of such megalithic monuments, they are not found on an extensive scale in this District. Dolmens of small size are found on lower elevations in the Malayattur Reserve. Special mention may be made of the dolmen found at Vadattupara in this Reserve. It consists of four uprights, but is smaller and cruder in shape than those found either in the Anjanad Valley (Kottayam District) or in the prehistoric sites of the Trichur District. Thrippunithura in Kanayannur Taluk is one of the few places where menhirs are found.

In 1963 some relics of monolithic culture, believed to date back from 200 B.C. to the 1st century A.D., were discovered from Kodanad in Kunnathur Taluk during the Periyar Valley Canal excavation. The relics included a good number of terracotta figurines, those of the males having beard and some of the other sex in the worshipping posture. The discovery of the figurines was a novel feature in these parts. Besides tusks of elephants were also found, though some of them were badly tampered with. Pot sherds with engravings generally available in megalithic pottery were also unearthed at the site. Half a furlong away from the site was found a pyriform jar with a round-collared rim, straight shoulder, globular profile and tapering to a truncated round base.

The historical archaeology of the District may be studied under the following heads:—(1) Temples, Churches and Synagogues, (2) Historical sites and monuments such as palaces, forts, etc., (3) Coins, and (4) Inscriptions.

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1 *Prehistory and Protohistory in India and Pakistan*. H.D. Sankalia, p. 39

2 The dolmens are rude structures of large unhewn stone resting on three or more others placed erect. They are burial chambers in which people of late neolithic times buried their people of importance.

3 A single monolith set up, as a rule, at or near a burial spot, the menhir is the simplest of megalithic monuments.

Temples, Churches and Synagogues

The District is noted for its ancient temples, churches and synagogues which are of special interest to the archaeologist and the historian. "Art in Kerala", says Dr. Cousins, "as in the rest of India, has always been the expression of religious ideas and sentiments. The temples have been the centre of its origin and growth. Paintings and sculptures in particular are found in a highly developed state in most of the important temples and palaces of Travancore and Cochin States."[1] The salient characteristic of the temples of the District is the predominance of wood architecture. They are decorated with ornamental figures in wood, terracotta, and carved stone. The wood carvings are often painted over with indigenous colours. There are a few important temples in this District with very valuable mural paintings which may be seen either on the walls of the *vimana* itself or on the walls of the surrounding *Nalambalam*. Fra Paolino writing as early as 1796 A.D. states, "The painting of the (Malayalis) is the same with their sculptures... They are finished in an original Indian style, which is very different from the Grecian or the Egyptian... Here and there I observed on the external walls surrounding the pagodas, several beautiful paintings, which were delineated with great freedom and correctness. The Indians possess also the wonderful dexterity in imitating the paintings and drawings which are given for by the Europeans to copy. Their colours which they prepare from the juice of certain trees, flowers, herbs and fruits are uncommonly lively and seldom or never fade".[2] In addition, some of the temples contain inscriptions or lithic records of historical value. We may refer to some of the most important temples of this District which illustrate these characteristics of Kerala's historical archaeology.

The Santanagopalakrishnaswami or Sree Poornathrayeesa Temple, Thrippunithura, is noted for its archaeological importance. The older shrine was destroyed by fire in 1921 A.D., but the western *Gopuram* which survived the fire is an interesting piece of architecture reminiscent of the Chola style. The sculptural designs engraved on the pillars supporting the ceilings of the *Asthanamandapam* in the second storey of the *Gopuram* are of particular interest

1 Quoted in the *Rama Varma Research Institute Bulletin*, Vol. V, Part II, p. 124

2 *Ibid* p. 125

as they give a glimpse of the rich treasures of art still lying hidden in the ancient temples of Kerala. There are also some attractive paintings in oil colours on the ceilings of the *Nadappura* of the same temple.

The Vishnu temple at Thrikkakkara, a village situated about 2 1/2 miles from Edappilli,is another famous temple of this District which excites the curiosity of the historian. This temple is revered as one of the 13 *divyadesams* of Malainadu and is celebrated in the hymns of Nammalvar. It is sacred not only to the Sri Vaishnavas but also to people all over Kerala, as the diety here (Thrikkakkara Appan) is invoked by the latter during their national festival, the *Onam*, when every house, rich and poor alike, offers *puja* to Him. The Thrikkakkara temple is one of the few temples on the West Coast which contains the largest number of lithic records of historical importance.

The famous Chottanikkara Bhagavathi temple in the Kanayannur Taluk contains paintings in oil colours on the walls of its *Vimana*.

The Vishnu temple at Kottaikkovilakam (Chennamangalam) situated at a distance of two furlongs from the ruins of the Vaipicotta Seminary is also of some interest. It is situated on a hillock, opposite to the side of the old palace (Kottaikkovilakam) along the foot of which flows the Periyar river. A beautiful four-armed image of Vishnu is enshrined in the temple. It may be of interest to note that within a very short distance from this temple are located the Jewish Cemetery and a Synagogue,a Catholic Church and a Mosque, all of which claim much antiquity.

The Kunnathali temple, one of the 18 famous Tali temples of Kerala, is situated about a furlong or two to the west of Kottaikkovilakam. As in other Tali temples the presiding deity here also is Siva. Several smaller shrines dedicated to Brahma, Vishnu, Durga, Siva etc., have been built in the extensive temple premises.

Among other temples of archaeological importance in the District may be mentioned the Siva temple at Uliyannur (Parur Taluk), the Siva temples at Pazhur and Thirumaradi (Moovattupuzha Taluk), and the Durga temple at Onakkur (Moovattupuzha Taluk). The Uliyannur temple contains a few interesting inscriptions. The Pazhur temple is noted for its mural paintings and wood carvings. "The temple in

Pazhur, in the 18th century, shows the same connectedness of painted wall surface and painted sculptures as could be seen in the cave temple of Badami in the Deccan in the 6th century."[1] The temples at Thirumaradi and Onakkur contain some fine examples of old worksmanship in wood illustrating various scenes and figures from the Puranas and the Epics. In different parts of Thodupuzha Taluk like Vannappara, Thekkechira, Poothanikode, Ayankara etc. beautiful sculptures of Vishnu, Sastha, Siva etc., were discovered by the State Archaeological Department in 1961-62.

Rock-cut Cave at Kallil

Another important archaeological relic of the District is the shrine in the natural rock-cut cave at Kallil, a place about 6 miles away from Perumbavur, the headquarters of Kunnathunad Taluk. It is one of the interesting Jain monuments met with in Kerala. In this cave are set up the images of Parswanatha, Mahavira and Padmavathi Devi. On the facade of the cave and on the front of the overhanging rock is carved an incomplete figure of Mahavira Thirthankara. Local people believe that heavenly sculptors visit the place every night in order to perfect the incomplete image. Another image of Mahavira Thirthankara is carved in half relief on the rock forming the back wall of the natural cave. It is seated upon a *Simhasana* in the usual *Yogasana* posture. The figure of a *Simha* (Lion), the totem peculiar to this Thirthankara, is carved in the front middle portion of the seat. Over the head of the deity is the triple umbrella while on either side at the back stands in reverential posture the figure of a *Gandharva* holding a *Chauri*. Near Mahavira on the right is the stone figure of Padmavathi Devi. It is covered with a metallic mask and is now the principal deity of the temple[2]. On the left of Mahavira Thirthankara is situated a figure of Parswanatha Thirthankara with its back turned towards the south.[3] As Jain monuments are rarely seen in Kerala, the rock-cut cave at Kallil is of particular interest to the archaeologist.

1 *The Arts and Crafts of Travancore*, Kramarisch, Cousins and Poduval, p. 149

2 The Kallil temple is now a Hindu temple and *pujas* are conducted by a Namboothiri Brahmin. But Jain merchants from Cochin visit and worship the deity in this temple even today.

3 For details see *Travancore Archaeological Series*, Vol. II, Part II.

Churches

The Ernakulam District contains some of the earliest centres of Christian activity in Kerala, and therefore it has several old churches, native and European. The churches at Parur and Malayattur (Kurisumudi) are believed to be among the oldest Catholic churches in the State, though they have no special archaeological interest. The Njarakkal church whose origin is traced to the pre-Portuguese period is also a very old Romo-Syrian church. The Roman Catholic churches at Chennamangalam and Udayamperur are also among the earliest Christian institutions in the District. The former is situated on a grand site close to the Vaipicotta Seminary of the Portuguese. A number of granite slabs with inscriptions in *Vattezhuthu* were discovered from its premises in 1935. Two specimens of pottery were also found from near the Church at a depth of 17' while digging a well and they are now preserved in the Trichur Museum. The Udayamperur church was the venue of the famous Synod of Diamper in 1599. The St. Theresa's Convent and Church at Ernakulam, the church and college in Vaipin Island and the church at Vallarpadam are also noted for their architectural designs.

There is an ancient Roman Catholic church at Kanjur about 4 miles from the Chowara Railway Station. It is dedicated to St. Sebastian and is associated in later tradition with Saktan Thampuran (1790-1805). It contains a unique kind of mural painting. On the walls of the *Gopuram*-like structure in front of this church is painted a remarkable action picture of European officers in the red uniform of the English East India Company fighting along with bare-bodied Malayalee soldiers in a pitched battle against an invading army, perhaps that of Tipu Sultan. The mural covers an area of about 200 sq. feet and has been executed in the indigenous style characteristic of the Cochin murals. This is in contrast to the paintings on the walls and ceilings in churches elsewhere which are seen to have been executed generally in the European style.

The Orthodox Syrian Church on the hill top at Kothamangalam is by tradition at least fourteen centuries old. The building is of the Basilican model, but is of vaster proportions than other church buildings found on the West Coast. Its striking peculiarity is the arch form employed on the side walls of the *hylka* (nave). This is a Sassanian

Conical Arch employed by Persian or West Asian architects.[1] The Mulanthuruthi Church built about 1225 and repaired in 1575 A.D. is also one of the earliest among the Orthodox Syrian Churches. It contains mural paintings depicting biblical scenes. The Orthodox Syrian Church at Kolancherri, (Kunnathunad Taluk) is a recently renovated church and is a fine specimen of modern ecclesiastical architecture in Kerala. The Santa Cruz Cathedral and St. Francis Church in Cochin are among the oldest European churches on the West Coast.[2]

Synagogues and Mosques

Ernakulam District has a few Synagogues which lend colour to the archaeology of the State. They present some features for a study of the plastic art of Kerala. Situated opposite to the Dutch Palace, Mattancherri, is the famous White Jews' or *Paradesi* Synagogue which was originally built in or about 1567. The Portuguese partially destroyed the original Synagogue in 1664, but it was rebuilt after the Dutch returned to Cochin. The clock tower was built in 1767. The famous Copper Plate Grants of Bhaskara Ravi Varman dated 1000 A.D. are preserved by the White Jews in this Synagogue. A golden Crown presented by the Maharaja of Travancore in 1805 is also one of the interesting exhibits preserved here. There are also some silver lamps in this Synagogue which were presented by Col. Macaulay, the first Resident of Cochin and Travancore. The well-known blue and white willow-pattern tiles forming the pavement were got down from Canton in China and they always attract the attention of visitors to the Synagogue. These tiles were presented to the Synagogue in 1763 by one Ezekiel Rabi, a rich merchant of those days. The tiles are hand-painted and number approximately 256. The scene depicted on each tile is different from the other. The cemetery attached to the Synagogue contains many tomb stones with inscriptions in Hebrew script.

Situated two furlongs to the South of the Synagogue of the White Jews is one of the two Black Jews Synagogues in Mattancherri. Two granite slabs with Herbrew inscriptions are found fixed on its walls while a third one is lying

1 For details see *Kerala Society Papers*, II, p. 277

2 It was in the latter church that the mortal remains of Vasco Da Gama were kept before they were removed to Portugal.

outside in the premises. Several tomb stones with inscriptions in Hebrew script are also found in the cemetery attached to the Synagogue of the Black Jews.

There is also another Black Jews' Synagogue at Chennamangalam, situated very near to the Vaipicotta Seminary. The Jews have preserved here a very important Hebrew record written on a granite slab in the year 1269 A.D. In addition, there are two Black Jews' Synagogues in Ernakulam and another in Parur.

Among Muslim centres of worship the Kanjiramittam mosque is a notable specimen of the old Muslim style. Situated about 14 miles east of Ernakulam, this beautiful mosque is said to have been erected over the mortal remains of Shaik Parid who spent his last days here. The great Muslim saint, Baver, is supposed to have prayed and attained eternal bliss here. The mosque at Karikode near Thodupuzha is also an ancient one.

Palaces

Among structures of archaeological interest in the District may be included some old palaces and buildings. The oldest of the palaces are those of the Rajas of Cochin which may be seen at Mattancherri and Vellarappilli, early seats of the Cochin royal family (Perumpadappu Swarupam). There are also a few palaces of European origin. The Mattancherri Dutch palace which was built by the Portuguese about 1555 and the Bolghatti Palace in Mulavukad built by the Dutch about 1744 are the earliest Portuguese and Dutch buildings in the District. At Chennamangalam may be seen a strongly built palace (*Kovilakam*) built by the Dutch for their ally the Paliath Achan. The *Kalikotta* palace in Thrippunithura which was built by the Dutch for Saktan Thampuran (1790-1805) in 1794 is an impressive structure and it is still in a good state of preservation. There is also another Dutch palace here which contains some mural paintings. Another palace at Thrippunithura called the *Devatha Malika* which was also built by the Dutch during the reign of Saktan Thampuarn was unfortunately demolished a few decades ago during the Dewanship of C. G. Herbert, (1930-1935). In view of the special importance of the Mattancherri Dutch Palace, a detailed account of the same is given below.



SRI KRISHNA TEMPLE (RIGHT) INSIDE THE DUTCH PALACE, MATTANCHERRI AND WHITE JEWS' SYNAGOGUE (LEFT) EXISTING SIDE BY SIDE

Dutch Palace, Cochin

The Dutch Palace, Cochin, otherwise called the Mattancherri Palace, is one of the oldest buildings built by Europeans in India in the predominantly oriental style. It is of unique value from the historical and architectural points of view and is preserved to this day as a remarkable work of art. It is believed that the Portuguese built and presented it to the then ruler of Cochin, Vira Kerala Varma (1537-1565)[1]. Since then for about two centuries it was the seat of the royal house of Cochin and is associated in Kerala history with the many vicissitudes of fortune through which Cochin passed. More than a hundred years later, about 1663 A.D., the palace underwent repair and renovation at the hands of the Dutch. The extensions towards east and south and the wooden ceilings of the Coronation Hall in the upper storey were built during the Dutch period. Thereafter the palace came to be known as the Dutch Palace, though it is a misnomer to call it so.

The following is a brief description of the Mattancherri Palace. "The palace is a quadrangular building divided into long and spacious halls, and has two storeys. It has an extensive compound surrounded by high masonry walls with two entrances from the east and the west respectively. In the central court-yard of the palace is enshrined the tutelary deity of the royal family—Pazhayannur Bhagavathi. Within the palace compound there are two other shrines dedicated to Gods Vishnu and Siva respectively. Close to the palace on the western side there is a large tank for bathing. The upper storey of the palace contains the coronation hall, three large bed chambers and other rooms, while the lower storey is divided into several small chambers with a spacious dining hall and a kitchen on one side. Attached to the eastern wing of the palace at the southern end, is a long portico, the lower portion of which was specially set apart for the ladies. It is provided with a separate staircase from the upper floor, and has a secret opening to the court-yard outside. The walls of this hall are decorated with large-sized paintings. Paintings are depicted on the walls of one of the halls in the upper storey and of three other chambers. There is another small portico attached to the southern wing of the palace, which is connected with a broad open staircase from outside, through which visitors

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1 The following story is told in this connection. "A Portuguese officer at Cochin plundered a temple near the palace of the Raja. This act of vandalism roused the Raja's indignation. The Portuguese, in order to pacify him, built the Mattancherri palace about 1555 A.D. and presented it to him.

are generally allowed entrance into the coronation hall. The walls of this hall are devoid of any decorations, but its wooden ceiling is of the rarest type, containing the finest floral designs ever found[1]." The Dutch Palace represents a peculiar blending of the European and indigenous ideas of architecture. The European influence may be seen in its arches. But, on the whole, the building was designed and constructed mainly with an eye on the indigenous needs and modes of life in contemporary Kerala.

Cochin Murals

The real glory of the Mattancherri palace, however, lies in its mural paintings, especially in the *Ramayana* scenes depicted in the long room to the west of the Coronation Hall known as *Palliyara* (Bed Chamber). Painted above the wooden mouldings on the wall these scenes, forty-five in number and covering an area of more than 300 sq. feet., present the story of the Hindu Epic *Ramayana* from Dasaradha's sacrifice to Rama's return from Lanka. These paintings, otherwise called Cochin Murals, bear, according to Dr. Cousins, "traces of the influence of Buddhist painting that links the art of Kerala with that of Ajanta and Bagh."[2] They have been attributed to about 1600 A.D. and to "the 17th century" rather vaguely. Four other chambers in the upper and lower storeys of the Palace are also decorated with mural paintings. One of these is a large painting of Vishnu as Vaikuntanatha—a faithful replica of the beautiful image enshrined in the Poornathrayeesa temple, Thrippunithura.[3] Yet another painting portrays in outlines the story of Uma and Siva, as described in the *Kumarasambhava* of Kalidasa. In addition there are paintings representing (1) Mahalakshmi and Bhutanata, (2) Kiratamurti, (3) The Coronation of Sri Rama, (4) Siva and Parvati, Ardhanareeswara and other Goddesses, (5) Vishnu as Ananthasayanamurthi, (6) Guruvayurappan, (7) Krishna lifting up the Govardhan, (8) Krishna lying flat on a couch playing flute, surrounded by Gopies, (9) Parvathi coming riding

1 Chapter on the History of the Mattancherri Palace by P. Anujan Achan, in the *Cochin Murals* (1940), V. S. Chitra & T. N. Srinivasan.

2 For a detailed account of the Cochin Murals see *Cochin Murals* by V. S. Chitra and T. N. Srinivasan.

3 According to tradition the mural paintings in the Dutch Palace were executed by one Govindan Embranthiri of Narayanamangalam. The portrait of Poornathrayeesa is still unfinished. The story goes that the Embranthiri who was working on this painting had a vision in his sleep that some divine voice asked him to stop his work and leave the place forthwith.



SIVA AND VISHNU MAYA— A MURAL PAINTING IN THE DUTCH PALACE, MATTANCHERRI

on bull while her husband Siva was engaged with Ganga, (10) Siva and Parvati in Kailasa and (11) Vishnu as Mohini playing ball when Siva comes on the bull. These paintings have been assigned to a period much later than the Ramayana scenes referred to earlier. While some are said to have been painted about 1700 A.D., some others are assigned to about 1800 A.D.

Archaeological Sites, Forts, etc.

Among the historical sites of the District may be mentioned the site of the *Kottaikkovilakam*, the palace of the Raja of Villarvattam, a Kshatriya chieftain of the 14th century who held sway over Chennamangalam and neighbouring areas. The site around the old kitchen well of this palace, the only remnant that is to be seen today, was declared protected by the Government in 1936. The ruins of Vaipicotta Seminary (Chennamangalam) and the Jesuit College at Pallipuram (Vaipin Island) are also among the interesting antiquities of the District. The remains of the Portuguese and Dutch forts at Pallipuram and Cochin also deserve mention. The former, an octagonal building, known by the name of Ayakotta or Azhikotta, is perhaps the oldest European structure extant in India, and may be seen in rather good condition even today.[1] The remains of forts built by Cochin rulers may be seen in localities like Chowara and Thrippunithura. The ruins of a cavalry outpost have been come across at Thrikkakunnu (near Irumpanam). In Moovattupuzha and Ramamangalam are the ruins of a fortress of the Vadakkumkur Rajas.

Karikode (Thodupuzha Taluk), the capital of the former principality of Kizhumalainadu, is an interesting historical site in this District. It is the seat of two ancient temples and a mosque and the ruins of an old fort. One of the temples which is locally known as Annamalai temple shows traces of the influence of Tamilian architecture and sculpture. It contains a collection of stone and bronze images of deities like Vishnu, Ganapathi, Parvathi, Shanmukha etc., as well as *puja* utensils like lamps and bells which have been assigned to the 11th and 12th centuries. These were declared protected by the Government in 1965.

Coins

A large number of coins, both indigenous and foreign, have been current in this District from very ancient days and

1 For a detailed description of the fort at Pallipuram and its position see *Travancore Archaeological Series*, Vol. I, pp. 180-185

a study of some of the available specimens has yielded valuable information relating to various periods of Kerala history. Among the earliest indigenous coins current in the region may be mentioned the *Rasi Fanams* and *Kaliyuga Rayan Fanams*. The *Rasi Fanams* were of gold and had 14 dots on them and they are supposed to have been introduced by Parasurama himself for the use of his people in Kerala. The *Kaliyuga Rayan Fanam* bore a faint resemblance to *Rasi* coins and according to Sir Walter Elliot it was at one time current over the whole of Kerala. Phoenician, Roman, Chinese, Arabic, Ceylonese, Buddhistic and other coins have also been in circulation at one time or other in this District as elsewhere in Kerala. The references in local inscriptions to the *Roman Dinari* and other foreign coins and the discovery of coins of foreign origin from Cranganore and Eyyal in the neighbouring Trichur District as well as from the towns of Parur and Udayamperur in Ernakulam District have also excited the interest of students of numismatics. Four gold coins which formed part of a find in Kothamangalam village (Ernakulam District) came to the notice of the State Archaeological Department in 1961-62. They have been identified as the coins issued by the Ommayad Caliph rulers of Egypt (661-750 A.D.). The *Veera Rayan Fanams* attributed by some to a Zamorin of Calicut were in circulation during the period immediately following the arrival of the Portuguese. In the days of the Portuguese and the early days of the Dutch Venitian *sequins*, the Moorish ducats, and Spanish *reals* were also in vogue. The Dutch introduced the rix-dollar, doit[1] and other coins while the Elephant Cash, the Sultan Cash, the Ikkeri Pagoda and other Mysorean coins came in the wake of the Mysorean influence. The Surat rupee, the East India Company rupee, the Bengal Bazaar rupee and the other coins of the English Company as well as local Travancore and Cochin coins were also in circulation here in the 18th and in the early 19th centuries.

It may be pointed out in this connection that till the advent of the Portuguese Cochin was a small principality dependent on Calicut and its rulers could not act independently and coin money. It was only as a result

1 For a detailed account of the Dutch *Doits*, see the article on the subject by V.K.R. Menon in the *Rama Varma Research Institute Bulletin* No. iii pp. 53-56. It may be stated in this connection that these coins were known in the West Coast as 'Kochi Kasu' or "Cochin Cash" on account of their being put into circulation by the Dutch from their settlement at Cochin.

of the powerful support that Cochin got from the Portuguese that its rulers came to enjoy the right of independent coinage. Barbosa who visited Kerala early in the 16th century makes the following observation. "And the king of Cochin could not coin money nor roof his house with tiles under pain of losing his State. And now since the Portuguese went there, the King of Portugal made him exempt from all this. So that he lords it over absolutely and coins money according to his custom."[1] The right to coin money independently which was conferred on the rulers of Cochin by the Portuguese continued to be enjoyed by them under the Dutch also. Under a treaty concluded between the Dutch East India Company and the Raja of Cochin in March 1663 coins were minted under the supervision of the Dutch Commandant who sent Dutch officers to watch the minting of coins in order to see that they were of due weight and value. This practice continued right up to the end of the 18th century. The coins issued by the Cochin rulers were called *Puthens.*[2] A supply of single *Puthens* was issued in 1780 from the Cochin mint (*Kammattam*) under the supervision of the Dutch Commandant. It was a small silver coin valued at 10 pies and was made of an alloy of 5 metals, viz., gold, silver, copper, iron and lead. Fra Bartalomeo who lived in Cochin about this time, speaks of "The Cochinies Panam, a very small round coin of tin or lead which has on one side a horn (and) is called Cingupanam (*Sankhupanam*), the horn Fanam. This horn represents the arms of the King of Cochin. Six Cochinies Cembu Casha, a Copper coin bearing the stamp of the Dutch East India Company, are equal to one Cochinies Fanam. There are also small coins of tin called Jaja Casha."[3] Double Puthens were issued in 1820, 1821, 1856, 1857 and 1896. These coins continued to be current in the Cochin area till 14th June 1900, when the British Indian coins were declared henceforward to be the sole currency of Cochin State. However, in the Travancore area of the District, the Travancore coins continued to be in circulation. These coins were Cash, Chackrams, and Rupees.[4]

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1 Quoted in the *History of Kerala*, Vol. II, K. P. Padmanabha Menon, p. 405

2 The term *Puthen* in Malayalam literally means something new.

3 Quoted in the *History of Kerala*, Vol. II, K. P. Padmanabha Menon, p. 415

4 For a brief account of the history of Travancore coinage, see *Trivandrum District Gazetteer*, pp. 93-95

Inscriptions

The District has a number of temples, churches and synagogues which contain inscriptions of historical value. Inscriptions have also been discovered from the archives of private families like Paliyam in Chennamangalam.

As stated earlier, the temple which contains the largest number of lithic records in this District is the Vishnu temple at Thrikkakkara. All the records discovered from here have been copied and such of those as are of historical value have been published in the *Travancore Archaeological Series*.[1] They are mostly the *Vattezhuthu* records of Indu Kotha Varma (944-962) and Bhaskara Ravi Varman I, (962-1019), the Chera Emperors who ruled with their capital at Mahodayapuram. A majority of such inscriptions either record gifts made to temples or deal with arrangements made in regard to the conduct of business connected with them. One of the Thrikkakkara inscriptions refers to the assembly of the Six-Hundred.[2]

The Siva temple at Udayamperur contains two lithic records one of which is that of the Chera Emperor Goda Ravi Varma (917-944 A.D.)[3] An inscription of the same ruler is seen in the Santanagopalakrishnaswami temple at Thrippunithura.[4] These records of Goda Ravi Varma together with those of the same ruler discovered from the temples at Tali and Irinjalakuda in the neighbouring Trichur District furnish valuable clues for the reconstruction of the history of the Second Chera Empire (800-1102 AD). In addition to the inscriptions of Goda Ravi, the Thrippunithura temple also contains a few other records which have been assigned to a comparatively modern age. While the Goda Ravi record is in *Vattezhuthu*, the others are in Malayalam and Sanskrit. One is also in Prakrit.[5]

A *Vattezhuthu* record is also found in the Krishnaswami temple at Kottaikovilakam in Chennamangalam. This

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1 See *Travancore Archaeological Series*, Vol. II, Part I and Vol. III, Part II

2 *Ibid* Vol. III, p. 188

3 *Ibid* Vol. II. pp. 63-64

4 *Ibid* Vol. VI, pp. 64-65

5 *Ibid* Vol. VI, p. 195

document which records an annual contribution of ghee to the Paruvarathu temple in Parur Taluk is said to have been executed unanimously in the presence of the *Urar*, the members of the assembly and the *Poduval* of Paraiyur (North Parur).[1]

There are also a few churches in this District which contain inscriptions of historical value. One of the most interesting of such records is the Pahlavi Cross inscription discovered from the Jacobite Syrian Church at Kadamattam, a village six miles distant from Moovattupuzha. The inscription is engraved on a tablet measuring about 30" x20" and it resembles the St. Thomas Mount Cross, and the bigger one at Kottayam in its sculptural details[2] The inscription reads as follows:--

> "I, a beautiful bird from Nineveh (have come) to this (Country).
>
> Written Mar Shapur.
>
> I, whom holy messiah, the forgiver, freed from thorn (affliction)".

A.S. Ramanatha Iyer, who edited the *Travancore Archaeological Series*, identifies Mar Shapur of the above record with Maruvan Sapir Iso of the Kottayam Copper Plates of Emperor Sthanu Ravi (844-885 A.D.), and assigns the date of the erection of the Cross to the 9th century of the Christian Era. He suggests that the Kadamattam Pahlavi Cross was possibly the one designed for and originally set up in the altar of the Tarisapalli at Quilon by Maruvan Sapur Iso, and that it must have drifted into the Kadamattam church at a later date owing to causes not ascertainable at this distance of time.

Some of the churches contain epitaphs, not all of them of historical value. The Roman Catholic church at Udyamperur, which is known as Diamper in church history, contains a number of tomb stones with epitaphs. As the earliest one is dated only in Kollam 735 (1559-60 A.D.), all of them are of the post-Portuguese period[3]. Special interest attaches to one of the epitaphs of Udayamperur because it is alleged

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1 *Travancore Archaeological Series*, Vol. VI, p. 190

2 See *Travancore Archaeological Series*, Vol. VII, pp. 66-75
Also see *Kerala Society Papers*, Series III, pp. 159-168

3 *Travancore Archaeological Series*, Vol. VI, pp. 65-71

to register the death on the ninth day of the second month of the year 1701 of one Tommarajavu of Villaravattam who was residing at Chennamangalam.[1] The reference is perhaps to the Kshatriya chief of Villarvattam who embraced Christianity and was buried in the Udayamperur Church after his death. The Orthodox Syrian Church at Kandanad, half a mile to the south of the Roman Catholic Church at Udayamperur, also contains about a dozen epitaphs, the earliest of which is dated in Kollam Era 807 (1632 A.D.) and the latest in Kollam Era 835 (1660 A.D.)[2] The old Roman Catholic Church at Pallipuram contains several epitaphs of the post-Portuguese period engraved in Vattezhuthu.[3] Epitaphs may be seen also in the Syrian churches at Kothamangalam and Ankamali. The Jacobite Church at Parur contains an inscription dated 1566. It refers to Mar Joseph Metran, a famous figure in the church history of Kerala, as having officiated at the ceremony of the erection of the Stone Cross in front of the western entrance of the church.[4] The Romo-Syrian Church at Parur has an epitaph which relates to the death of Bishop Francis in 1624 A.D. Moreover, the Chittiatte church at Verapoly contains three copper plates engraved in *Vattezhuthu*. The documents are dated in Kollam Era 894 (1719 A.D.), 936 (1761 A.D.), and 956 (1781 A.D.) respectively, and relate to some transactions connected with landed property.[5]

Among the inscriptions of historical value found in the Synagogues of this District the most important is the Jewish Copper Plate grant of Bhaskara Ravi Varman I (962-1019 A.D) dated 1000 A.D. which is preserved in the White Jews' Synagogue at Mattancherri. It records the royal gift to the Jewish chief, Joseph Rabban, of the rights of the *Anchuvannam* along with 72 proprietary rights which included the collection of tolls and other revenue and the perpetual rights to the palanquin for himself and his successors.

A Hebrew inscription has been found in the Jewish Synagogue at Parur. It is a verse of 8 lines inscribed on a granite slab built in the front wall of the Synagogue and records the year 5376 *Anno Mundi* (1615 A.D.) as the

1 *Travancore Archaeological Series*, Vol. VI, pp. 71-74
2 *Ibid* Vol. VI, p. 141
3 *Ibid* Vol. VII, pp. 144-45
4 *Ibid* Vol. VII, pp. 145-56
5 *Ibid* Vol. VI, pp. 196-98

date of the erection of the Synagogue. The inscription also mentions the Jewish leader, David Castile, at whose expense the Synagogue was built.[1]

The Paliyam family in Chennamangalam has preserved some inscriptions and manuscripts of historical value. The Copper Plates of the Ay King Vikramaditya Varaguna (885-925 A.D.) were found, along with others, in the house of the Paliath Achan. They record the grant of an extensive landed property in South Travancore by this ruler to the celebrated Buddhist temple at Thirumulapadam.[2] Another important record obtained from Paliyam is a set of five copper plates, dated the 14th Meenam in the year 322 of the Puduvaipu Era[3], recording an agreement between the Raja of Cochin and the Dutch East India Company. The inscription is of interest in several ways. First of all, the alphabet employed is a degraded modification of the *Vattezhuthu* and as such it is of interest to the palaeographist. Secondly, the document is dated in a special era, viz., the Pudu Vaipu era . As only very few documents dated in this era are available, the inscription is of special interest to students of Kerala epigraphy. Above all, this record furnishes the first extant agreement between the Raja of Cochin and the East India Company and hence it is of considerable historical value.[4] In addition to these inscriptions two manuscripts of Kautilya's *Arthasastra* were also discovered from the Paliyam library.[5]

EARLY HISTORY

Early Foreign Notices

Neither inscriptions nor literary works throw much light on the history of the District for the period prior to the arrival of the Portuguese. Cochin, the most important port of modern Kerala which is situated in this District, is not even mentioned in any of the earlier foreign notices of Malabar.

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1 See *Kerala Society Papers*, [Series III, pp. 166-67 for a detailed study of the Hebrew record.

2 For an analysis of the record see *Travancore Archaeological* Series, Vol. 1, pp. 187-95 and *Trivandrum District Gazetteer*, pp. 110-11

3 The corresponding date [in the Christian Era is 22nd March 1663 A.D.

4 The inscription has been published and edited in *Travancore Archaeological Series* Vol. I, No. VI, pp. 1-12

5 Prof. Winternitz has examined these manuscripts of the *Arthasastra* in the *Rama Varma Research Institute Bulletin*, Vol. I, No. i., (pp. 1-6)

Neither Pliny (23-79 A.D.) nor the author of the *Periplus* (1st century A.D.) nor Ptolemy (126-161 A.D.), neither Marco Polo (1290-93 A.D.) nor Ibn Batuta (1342-47 A.D.) makes any mention of Cochin. Nevertheless, these travellers give relatively detailed accounts of places situated to the north and south of Cochin. Cochin port is believed to have been formed only as late as 1341 when as the result of a heavy flood in the Periyar in that year the ancient harbour of Muziris (Cranganore) got silted up and became useless for purposes of trade. Though this seems to be a convincing explanation of the absence of any reference to Cochin in the earlier foreign notices of Malabar, the view that this port was formed only in 1341 is not shared by all writers. According to Puthezhathu Raman Menon the town of 'Balapuri' mentioned in some of the ancient literary works and some later ones like the *Keralamahatmyam* is to be identified with Cochin[1]. If this identification is correct, it would mean that Cochin might have existed even before 1341 as a small harbour (*Kochu Azhi*) side by side with the large harbour of Muziris or Cranganore. Scholars have also tried to discover in the writings of some of the foreign travellers vague references to some other places in the District. Thus Ptolemy's "Udamperora" has been identified with Udayamperur and "Pounata" (the land of beryls) with Punithura, short name for Thrippunithura.[2]

St. Thomas Tradition

The District figures in the early Christian tradition current in Kerala according to which St. Thomas, the Apostle, landed at Muziris, the premier seaport of South India, about the year 52 A.D. and founded seven churches on the Malabar coast.[3] One of the churches founded by the Apostle was at Kottakavu or Parur. Several Brahmin families and their dependents are said to have lived here around an ancient pagoda and temple. The story goes that most of them embraced the faith of St. Thomas and that the Hindu temple was converted into a centre of Christian worship. The present spacious church at Parur is believed to stand in the very place where once stood the ancient church of

1 *Saktan Thampuran*, Puthezhathu Raman Menon, pp. 19-20

2 *Ancient Kerala*, Komattil Achutha Menon, pp. 69-70

3 The seven places where St. Thomas founded the churches are (1) Cranganore or Malianhara, (2) Quilon, (3) Chayal, (4) Niranam, (5) Kokamangalam, (6) Kottakavu or Parur and (7) Palayur.

St. Thomas, the Apostle. The churches at Malayattur (Alwaye Taluk) and Mylakombu (Thodupuzha Taluk) also claim that they were founded by the Apostle.

Early Chera Empire

The early political history of the Ernakulam District is interlinked with that of the Cheras of the Sangam age who ruled over large parts of Kerala with their capital at Vanchi or Karur.[1] Kerala which then formed part of the larger unit of Tamilakam consisted of four main political divisions, namely, Poozhinad, Kudanad, Kuttanad and Venad.[2] The exact boundaries of these four divisions are not known, but some broad indications may be given. Poozhinad or the "sandy tract" covered the whole of the present Cannanore District and a part of the Kozhikode District. Kudanad or the "western land" denoted the region to the south of Poozhinad, and it comprised of the whole of the present Trichur and Palghat Districts and a portion of the Kozhikode District.[3] Kuttanad or the "land of lakes" comprised the territory lying further to the south of Kudanad and it comprised the whole of Ernakulam, Alleppey and Kottayam Districts and portions of the Quilon District. South of Kuttanad lay Venad and further south the Ay Kingdom which stretched up to very near Cape Comorin.

Vanchi or Karur

Some scholars have tried to locate Karur or Vanchi, the original capital of the first Chera Empire, in this District. V. Kanakasabhai identified it with the deserted village known as Thirukkarur (Thrikkariyur), three miles from Kothamangalam and 28 miles east by north of Cochin.[4] K. P. Padmanabha Menon held the view that if Thiruvanchikulam was not itself Karur, the more likely site was Thirukkarur as suggested by V. Kanakasabhai. He says, "The remains of an old building are still to be found there. The people there still point to a plot of ground as the place from which Parasu Rama is said to have taken his final farewell of the Namburies. It is further significant that in

1 For a short account of the early political history of the Cheras, see *Trichur District Gazetteer*, pp. 80-86.

2 The period before the 6th century of the Christian Era is usually referred to as the Sangam age in South Indian History.

3 It was called Kudanad or "western land" as it was situated immediately to the west of Kongunad.

4 *The Tamils 1800 Years Ago*, V. Kanakasabhai, p. 15

the *Keralolpathi*, Karur or Thirukkarur (the prefix *Tiru* simply means prosperous) is mentioned as the capital of one of the Cheraman Perumals and the tradition is still remembered by the people of the place."[1] This identification is, however, far-fetched and can hardly be accepted as correct. Most probably, Vanchi, the original Chera capital, was Karupadanna in the Trichur District.[2]

"Atakamadam"

The early Tamil works give us the names of several Chera monarchs who ruled from their capital at Vanchi. There are still places in this District which are alleged to evoke memories of their association with some of these ancient rulers. According to the *Silappathikaram* the "Chakkayan" (Chakiar) who performed *Koothu* before Senguttuvan Chera hailed from Parur. Some writers have also sought to locate in this District the Vishnu temple of "Atakamadam" from which, according to the *Silappathikaram*, Cheran Senguttuvan received *prasada* (holy gift) before he embarked on his northern invasion. It is suggested that the temple might have been either the Krishna temple at Ravipuram, a part of Ernakulam town or the Santanagopalakrishna Temple at Thrippunithura. The identification of "Atakamadam" with either Ravipuram or Thrippunithura is, however, not convincing. The image installed in the Ravipuram temple is comparatively a new installation. The deity installed at Thrippunithura is Santanagopala seated under the hood of a five-headed cobra. The deity of 'Atakamadam' is described as the "God who is reclining on Anantha," (Ananthasayana). All evidence points to the possibility that 'Atakamadam' must have been a part of the town of Vanchi, if not a portion of the very palace of the Chera Emperor. Hence it is difficult to accept the view that the temple must have been located in Ernakulam or Thrippunithura.[3]

Government and Society in the Sangam Age

The Sangam works give us a true picture of the political, social and economic conditions prevailing in the early centuries of the Christian era. Hereditary monarchy was

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1 *History of Kerala*, K. P. Padmanabha Menon, Vol. I, p. 33

2 In this connection attention is invited to the *Trichur District Gazetteer* (pp. 86-91) where the different veiws regarding the identification of Vanchi have been examined and an attempt has been made to locate Karur at Karupandanna in the Trichur District.

3 Vide *Seran Vanchi*, Dr. S. Krishnaswami Iyengar, pp. 29-32

the prevailing form of Government. Civil wars and disputed successions were, however, not uncommon. Though the king was an autocrat, his autocracy was tempered by custom as well as by the counsels of his friends and ministers. The king upheld moral values and took a paternal interest in the welfare of his people. He held a daily *durbar* at which he received complaints in person and redressed the grievances of his subjects. The *sabha* or *manram* of the King was the highest judicial tribunal. The elders attended the meetings of this body in order to help in the settlement of disputes. It was consulted by the King also on all important questions of policy and administration. The main sources of royal revenue were land and trade. Apart from customs duties there were also excise duties which brought considerable revenue to the State. The army consisted of the usual *chathuranga,* viz., infantry, cavalry, chariots and elephants. Bows and arrows, swords, spears and sheilds were the common weapons of war. The drum and the conch were used for purposes of signalling on the battle field. Death in war was considered as a glorious end for men. Wounded soldiers were treated with great humanity, their wounds being cleaned and stitched. The king often led the armies in person during battles and his death was generally the signal for surrender to the enemy. In addition to being the head of the Government and leader of the people in war, the King was also the patron of arts and letters. The Tamil works are replete with references to feats held by kings in honour of poets and bards. While some of the poets resided permanently with the kings others moved about the country followed by women who danced to the accompaniment of their music. All classes of poets enjoyed royal patronage.

In the early Sangam age the caste system had not taken full shape. There was a large measure of social freedom and equality, caste and communal barriers being not very rigid. The Panas, the Kuravas, the Vetas and other toiling classes occupied a high status. They enjoyed the right to full education. Some of the greatest poets of the Sangam age like Kapilar and Paranar were Panas. The protection of the Panas was considered to be one of the duties of the Chera kings and the former had free access to the royal court. Though rice was the staple food of the people, even Brahmins ate meat and drank liquor without any fear of

social stigma. The evils of untouchability and unapproachablity were unknown. Women enjoyed a high status in society. A high standard of education prevailed among them and the age produced many a great poetess from among the ranks of the Panas, Vetas, etc., Auvaiyar being the most illustrious among them. Child marriage and seclusion of women were unknown during the early Sangam age. Widow marriage was allowed. Marriage was held by mutual consent and women had freedom to choose their husbands. Spinning and weaving were the chief occupations of the womenfolk.

There were several popular pastimes and amusements during the age. Poetry, music and dancing were the most cultured amusements prevalent among the upper classes. Mixed dances in which men and women took part were quite common. Musical instruments of various kinds were known. *Koothu* seems to have been prevalent in its rudimentary form. Hunting, boxing and wrestling were popular among warriors. Dice play was a favourite pastime of old men. Houses built of brick and mortar were common among the richer classes. The residences of kings had beautifully laid out gardens. The people had great faith in omens and astrology. Both cremation and burial were resorted to for the disposal of the dead.

As for their religion, the people of the early Sangam age followed Dravidian practices of worship. They had, however, no objection to worshipping in Jain or Buddhist temples or performing Vedic rites at the same time. Worship of departed heroes was very common. The most favourite deity was the War Goddess Kottavai (Dravidian Durga) which was worshipped with elaborate sacrifices. While the majority of the population followed Dravidian practices, a small percentage of the people followed Hinduism, Jainism and Buddhism.

By the beginning of the 5th century A.D. the Aryans spread over large parts of South India and began to exercise a great influence in society, especially among the upper classes. As a result far-reaching social changes took place in the later Sangam age. The caste system took deep roots in the soil. The position of the Panas, Vetas, Kuravas, etc. became miserable and they came to be treated as low castes and subjected to social disabilities. The Sudras were prohibited from undergoing any kind of education. Women

lost their old status. Child marriage came into vogue and widow marriage was discouraged. Marriage as a sacrament attended with rituals also came into vogue under Aryan influence.

The Sangam age saw considerable progress in the economic field. There was active trade relation between Kerala and the outside world. The greatest port of the land was Muziris (Trichur District). Huge ships from foreign countries like Rome, Greece, etc. called at this port and carried on brisk trade. A large number of foreigners also came to Kerala during this period and there was free cultural intercourse too. Roman coins have been discovered from several parts of the State and they testify to the extent of the trade with Rome. Parur and Udayamperur in this District are centres from where Roman coins have been unearthed. Apart from international trade internal trade also made considerable progress. Salt was an important article of international trade. Trade was often conducted by barter. Agriculture was the chief occupation of the people and agricultural operations are vividly described in the Sangam works.

Rise of the Kulasekhara Empire

The immediate post-Sangam period, i.e., the period from the 6th to the 8th century A.D. is a dark period in the history of South India. During the 5th and 6th centuries A.D. the established political order in South India was upset by the Kalabhras. The political revolution which the Kalabhras worked out affected the fortunes of Kerala as well. Epigraphical records obtained from regions outside Kerala contain a few general references to the war between the Cheras and other South Indian powers and the defeats suffered by the former at the hands of the latter. But by about 800 A.D. historical light redawned in Kerala when the Cheras under Kulasekhara Varman once again established their political ascendancy. The Second Chera Empire which was set up with its capital at Mahodayapuram flourished till the 12th century A.D. and its rulers exercised sway over the whole of Kerala including the District under review[1]. This is testified to by the evidence of the inscriptions of the rulers of this dynasty which have been discovered from such places as Moozhikulam, Thrikkakkara, Thrippunithura and

1 For a detailed account of the history of the Kulasekharas see *Trichur District Gazetteer*, pp. 107-130

Udayamperur. While the inscriptions of Goda Ravi Varma (917-47) have been found in the Thrippunithura and Udayamperur temples, those of Indukotha Varma (944-962) and Bhaskara Ravi Varman I (962-1019) have been found in the temples at Thrikkakkara and Moozhikulam. The inscriptions of some of the *Naduvazhis* of Kalkarainad, one of the *Nadus* or divisions of the Kulasehkara Empire, may also be seen in the temple at Thrikkakara, and they too bear evidence of the suzerainty exercised by the Kulasekharas over this District.

Political Divisions of the Empire

The period of the Second Chera Empire (800-1102A.D.) constituted an important epoch in the political and cultural history of Kerala. The inscriptions of the period throw light on contemporary political divisions. The southern portion of the present Kanyakumari District (Madras State) was under Pandyan rule while its northern portion and the southern part of the Trivandrum District including Trivandrum city and the region lying immediately to the north of it were under Ay rule. The Quilon, Kottarakara and Chirayinkil Taluks constituted the kingdom of Venad. To the north of Venad lay Odanad which comprised the coastal region with modern Kayamkulam as its capital while to the north east of Odanad lay the *Nadus* of Nantuzhainad (Thiruvalla-Changanacherry region) and Munjanad (Kottayam area). To the north of Munjanad lay Vempolinad and to the east of Vempolinad lay Kizhumalainad[1]. Kizhumalainad comprises the Thodupuzha-Moovattupuzha region of the present Ernakulam District and it had its capital at Karikode near Thodupuzha. Kalkarainad which included Thrikkakkara and neighbouring regions in Ernakulam District formed the territory lying to the north of Kizhumalainad. Further north lay Nedumpuraiyurnad (Palghat-Chittur area), Valluvanad (Ponnani-Tirur area), Ernad, Polanad (Calicut area), Kurumbranad (Quilandy-South Wynad area), Kolathunad (Cannanore-Kasargode area) and Puraikizhanad (North Wynad-Guddalore area). Each of these *nadus* was ruled by feudatory governors (*Naduvazhis*) who were appointed by the Emperor. The Thrikkakkara inscriptions give us the names of Yakkan Kunrappolan, Kannan Puraiyan, and Polan Ravi who were *Naduvazhis*

1 Vempolinad was split up into the principalities of Thekkumkur and Vadakkumkur after 1110 A.D. Kizhumalainad merged in Vadakkumkur about 1600 A.D.

of Kalkarainad appointed by the Chera Emperor of Mahodayapuram. Being feudatory chiefs the *Naduvazhis* did not assume royal titles and used only the regnal years of the Chera Emperor in their records. They were controlled by the royal representative called *Koyiladhikarikal*. They were also controlled in their domains by popular assemblies called *Munnuttuvar*, (Three Hundred), *Arunuttuvar* (Six-Hundred) etc., Thus Thrikkakkara in Kalkarainad had its Six-Hundred as is testified to be by the evidence of an inscription of the place.[1] The provincial governors carried on the administration only in accordance with the wishes of these popular assemblies.

Administration under the Kulasekaras

The inscriptions also give us some information about the administration and social life of the Empire. The names of several officials occur in a large number of inscriptions discovered from Thrikkakkara and other places in the 9th and 10th centuries. Among the official terms that occur prominently in the inscriptions may be mentioned *Adhikari* (Officer), *Matilnayakan* (Fort Officer), *Tiyamazhavan* (Police Officer), *Patanayakan* (Commander-in-chief), *Kizhpatanayakan* (Second-in Command), *Thiruvaikelpan* (the officer who took down the oral orders of the King), *Bhandaram Kappan* (Treasury Officer) etc. The terms *ulpadan* and *perumudiyan* which also occur in some inscriptions were offices connected with the administration of temple funds. Special attention was bestowed by the rulers on the maintenance of law and order. There was a penal code which prescribed specific punishments to the guilty. The severity of the punishment depended upon the seriousness of the crime. Imposition of fine and imprisonment were common, while death penalty was not unknown. The punishments for those who mismanaged temple properties or funds were very severe. The officials concerned were either subjected to a fine which had to be paid in gold the value of which was specified, or they were removed from office. The inscriptions also refer to the prevalence of certain taxes. Reference is found to a tax called *padavaram*. The *varam* (portion) which was allotted to the king was called *Kopadavaram* and that which was allotted to the chieftain or *Desavazhi* (*Vazhkai Vazhi*) was called *Patipadavaram*. Each of these taxes was one tenth of the gross produce, each tenant thus paying one-fifth of

1 *Travancore Archaeological Series*, Vol. III, p. 188

the gross produce as total land tax. There were also several other taxes due to the State such as *Talaikkanam*, *Enikkanam*, *Menippon*, *Polippon*, *Iravuchoru* and *Kuda-nazhi*.[1]

The epigraphical records of the period also give detailed information regarding the arrangements made for the upkeep and maintenance of temples. In fact, most of the lithic records refer to the gifts made to temples for their maintenance. The gifts are very often made in the form of lands the income from which was set apart for the burning of lamps on specific occasions and for making offerings to the deity. The custom prevalent in Kerala of measuring and delivering rice and paddy in a certain specified place in the temple and with the standard measures preserved therein is found mentioned in some of the inscriptions. There were also elaborate rules and regulations laid down by the rulers to regulate the relations between landlords and tenants. The historic Moozhikulam *Kacham* the regulations of which have been found mentioned in the inscriptions discovered from various parts of Kerala such as Navaikulam, Thiruvanvandur, Thiruvalla, Kaviyur, Kumaranallur, Thrikkakkara and Thirunelli was designed particularly to safeguard the interests of the tenants.[2]

Hindu Revival and Thrikkakkara Festival

The age of the Kulasekharas saw the origin and climax of the great movement for the revival of Hindu religion and culture in Kerala. The Kulasekharas were themselves zealous Hindus and it was under their generous patronage that the Hindu revivalist movement made spectacular gains. One of the notable features of this revival was the construction of temples and shrines on a large scale.[3] The vast majority of the ancient temples that we find in Kerala today had their origin during this period. The Vishnu temple at Thrikkakkara in this District reached the height of its glory and fame in the days of the Kulasekhara Empire. One of the thirteen *Divyadesams* of *Malainadu*, it developed into a great seat of Vaishnava religion and culture. The Onam festival was celebrated here on a fabulous scale under imperial auspices. The inscriptions of the period discovered from Thrikkakkara give us interesting glimpses into the arrangements made for the celebration of this festival which lasted

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1 See also *Quilon District Gazetteer*, pp. 81-82
2 *Janmisambradayam Keralathil*, Prof. Elamkulam P. N. Kunjan Pillai, p. 55
3 See *Trichur District Gazetteer*, p. 124

for 28 days. It was a festival of both religious and political significance. The image of the God of Thrikkakkara is believed to be that of Vishnu in the form of Vamana *Avatar*.[1] This conception has invested the celebration of the Onam festival at Thrikkakkara with a special significance because according to tradition Onam is the glorification of the achievement of Lord Vishnu in his *avatar* or incarnation as Vamana (Dwarf).[2] This spirituality associated with the festival coupled with the festivities that accompanied it helped to boost the morale of the Sri Vaishnavites and imparted to their creed a new vigour, vitality and appeal. Moreover, the festival also served to stir feelings of national solidarity, and to uphold the political supremacy of the Chera Emperors over the local chieftains. The Onam festival at Thrikkakkara was attended in person by all the *Naduvazhis* of Kerala. The celebration of the festival and endowments made therefor are frequently mentioned in the inscriptions of the place. Grants of lands were made for the feeding of persons during the festival days. That Onam was celebrated at Thrikkakkara under the Kulasekharas as a festival of religious fervour and national solidarity has made Thrikkakkara a place of unique cultural importance to the people of Kerala even today.

Sankaracharya

The Ernakulam District may be said to have supplied the intellectual leadership to the movement for Hindu revival in India in the 9th century A.D. Sankaracharya (788-820 A.D.), the great Advaita philosopher, came from this District.

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1 Thrikkakkara is also called Vamanakshetram.

2 It may be interesting to note in this connection that though Onam is today mainly a festival confined to Kerala, it was at one time a festival of the whole of South India. In the early centuries of the Christian Era it was celebrated as a national festival in Tamilnad. In his poem *Madurai-k-kanji*, Mangudy Marudanar, one of the illustrious poets of the Sangam age, gives a picturesque description of the Onam festival as celebrated in the Pandyan capital of Madurai. Even today Onam is sacred to Lord Vishnu of the Venkata or Thirupati Hills. As the Lord of Thirupati is celebrated from very ancient times as the visible manifestation of the Vamana *Avatar* of Vishnu the parallelism between the celebration of the Onam festival at Thrikkakkara and that at Thirupati hills is significant. The institution of Onam festival fell into disuse outside Kerala after about the 10th century A.D., but the continued celebration of Thiru-Onam day at Thirupati even today serves to remind us of the old history and tradition of Onam as a national festival of all South India. See the relevant chapter on Onam in *Some Aspects of Kerala and Tamil Literature* Part II, M. Raghava Ayyangar (pp. 1-6) and in *Chila Kerala Charitra Prasnangal* Prof. Elamkulam P. N. Kunjan Pillai, (pp. 29-34).

3 It is the custom in Kerala even today that the image of Thrikkakkara Appan (Lord of Thrikkakkara) is made of earth and worship offered to this image in almost every Hindu home during the Onam festival.

He was the contemporary of the great Chera Emperor and Vaishnava Saint Kulasekhara Alwar (800-820 A.D.). The full details of his life are not known, but the broad outlines are discernible. Sankara was a Namboothiri Brahmin born at Kaladi, a small village on the banks of the river Periyar. He left Kerala in his early youth and came into contact with his teacher (*Guru*) Govinda, the disciple of Gaudapada, on the banks of the Narmada. His itinerary took him to all parts of India and he visited all the great sanctuaries of faith and learning. He made it his life mission to purify Hinduism of its irrational formalities and establish the supremacy of the Vedanta. He wrote commentaries on the *Brahmasutras*, the *Bhagavat Gita* and the principal *Upanishads*, and composed philosophical poems like *Vivekachoodamani*, *Upadesasahashri*, *Atmabodha* and *Mohamudgara* and several *Stotra* works like *Sivanandalahari* and *Saundaryalahari*. These commentaries and works of Sankara provided a sound philosophical basis to Hinduism and gave it an intellectual appeal. Sankara's system which is known as *Advaita Vedanta* is India's greatest contribution to the philosophy and the science of religion and it has given to its author a place of pre-eminence among the greatest philosophers and metaphysicians of the world. The system which has its roots deep in *Upanishadic* teachings advocated the oneness of the individual soul with *Brahman*, the all pervading cosmic force, and permitted the worship of God in different forms. To all diversities and pluralities Sankara gave the name *Maya*. Sankara fought on the intellectual plane both against the *Meemamsakas* and the Buddhists. He repudiated the meaningless ritualism of the former and the agnosticism or nihilism of the latter. At the same time he accepted Buddhist metaphysics and also stressed the usefulness of worship and meditation. He preached particularly the cult or worship of Siva. The emphasis laid on action is also an integral part of Sankara's philosophy and it was perhaps derived from the teachings of the *Gita*. Following the Buddhist example he endeavoured to give an effective organisational framework to Hinduism. He set up four great *Mutts* in four different corners of India, viz., at Badarinath in the north, Puri in the east, Dwaraka in the west and Sringeri in the south. These great monasteries function actively even today and help to maintain the hold of Hinduism on the people. Sankara also organised a body of regular missionaries (*Sanyasins*) to be in charge of the propagation

of his teachings. Moreover, he travelled extensively all over the land and engaged himself in intellectual combats with his adversaries. His argument with Mandana Misra, the leading exponent of *Meemamsa*, is a famous episode in Indian tradition. He was so unsparing in his criticism of the *Meemamsakas* that a charge has been levelled against Sankara that he was a *praschanna* Buddha or a disguised Buddhist. Be that as it may be, the fact remains that Sankara pulled down the thin wall of separation between the Buddhist laity and Hinduism. The result was undoubtedly disastrous to the Buddhist cause and this great religion died an inevitable death in the land of its birth.

Sankara holds a unique place in the history of Indian thought and culture. He was the happy combination of an ideal philosopher and a practical reformer. While providing Hindu religion with a philosophical background he reformed the morals and manners of the various sects and sections within the Hindu fold. Sankara was also a great messenger of the cultural unity of India. His choice of the four corners of the country for setting up his *Mutts* shows that he had a grand vision of India as a single cultural unit. Sankara was a great reconciler too and he is said to have "laid the foundation of the attempts at synthesis which constitute the religious history of India during the middle ages."[1] His attempts to bring about a reconciliation of conflicting systems met with commendable success. He combined in his teachings the best elements in Hinduism and Buddhism. Some scholars have expressed the view that the philosophy of Sanakara bears traces of the influence of Islam. According to Prof. Humayun Kabir Sankara's emphasis on action combined with his passionate insistence upon the unity of the *Brahman* "reveals a source of affinity with Islam which is as strange as it is interesting."[2] It is argued that Islam had already made itself felt as a force in Kerala during the age of Sankara and that it was only natural "that an intellect so acute and vigorous as Sankara's should be attracted by this alien mode of thought and absorb out of it elements that suited his own cast of mind."[3] Prof. Kabir says further, "There are reasons to think that he also incorporated into his synthesis those elements of the teaching of Islam

1 *Indian Heritage*, Prof. Humayun Kabir, p. 71
2 *Ibid.*, p. 70
3 *Ibid.*, p. 67

which were most suited to the genius of the land. His extreme monism, his repudiation of all semblance of duality, his attempt to establish this monism on the authority of revealed scriptures, his tendency to regard his own activity as mere restoration of the original purity of the revealed truth are all elements which remind one strongly of the tenets of Islam. When one connects this similarity in outlook with the appearance of Islam as a living force in his birthplace just before his birth, the inference that he was influenced by the new faith cannot be rejected summarily."[1] The view of Prof. Kabir has not been accepted by all scholars. Prof. K. A. Nilakanta Sastri believes that some of the traits of Hindu revival such as the increasing emphasis on monotheism, on emotional worship, on self-surrender, on the need for devotion to a spiritual teacher as well as indifference to rituals which are alleged to be the result of Islamic influence may well be explained "from the internal history of Hinduism itself and that there is no direct evidence of the active influence of Islam on their growth."[2] One fact is abundantly clear, namely, that Sankara's philosophy had its roots in the teachings of the *Upanishadas* and the *Bhagavat Gita*. Nevertheless, viewed in the background of the age in which he lived, it may not be wrong in assuming that Sankara was conscious of the new challenge to Hinduism posed by the emergence of the Crescent on the Indian horizon, and that this consciousness imparted a decisive direction, vigour and impetus to the Hindu revivalist movement of which he was the leading figure.

Trade

Apart from the progress in the field of religion, the period of the Kulasekharas also witnessed considerable progress in the economic field. Kerala had at this time extensive trade relations with the outside world, particularly with China. The most important items which were exported from here were pepper, cinnamon, teakwood, ivory, sandalwood, cotton fabrics, peacocks, and monkeys. China imported into this country such articles as silk and sugar. The spectacular increase in the volume of international trade brought in its wake all-round economic

1 *Indian Heritage*, Prof. Humayun Kabir, p. 70. Prof. Kabir has spoken elsewhere in the same book (p. 67) of "the fairly widely held tradition" that Kaladi where Sankara was born belonged to a small principality whose king had accepted Islam. However, no such tradition is prevalent in the locality.

2 *History of South India*, K. A. Nilakanta Sastri, p. 428

prosperity. Well-organised merchant guilds and trade corporations functioned vigorously in all major towns. The most notable of such organisations were *Anchuvannam* and *Manigramam*.[1] The State got considerable income from customs duties. The Jews seem to have been an important commercial class within the Empire. The Chera Emperor Bhaskara Ravi Varman I conferred significant rights and privileges on the Jewish commercial chieftain, Joseph Rabban and his community, as is testified to by the Jewish Copper Plates of 1000 A.D. Joseph Rabban was made the hereditary chief of the Jews and he was also given the powers and privileges of a native chief. Considering the fact that this charter was granted to the Jews at the time of the Chola-Chera war, it seems almost certain that the Chera Emperor might have granted the privileges in return for some substancial help, financial and otherwise, rendered to him by the Jews in repelling foreign aggression.

Economic and Social Changes

The age of the Second Chera Empire (800-1102 A.D.) also witnessed other significant social and economic changes which profoundly affected the future course of Kerala history. The 11th century A.D. was the period of the Chola-Chera war or what has been called the "Hundred Years' War" between the imperial Cholas and the Kulasekharas.[2] The war led to an enormous increase in the influence of the Namboothiri Brahmins in the public life of the country. The *Janmi* system or landlordism also originated during this period under the impact of the socio-economic forces let loose by the Chola-Chera war. In the exigencies of the war a large number of tenants made over their landed properties to the Namboothiri Brahmins and to the temples as lands thus made over become *Brahmaswoms* and *Devaswoms* and enjoyed immunity from the ravages of war as well as exemption from the payment of land tax to the State. The war also led to the disintegration of the old *Makkathayam* (patrilineal) system of inheritance and ushered in the new era of *Marumakkathayam* (matrilineal) system in Kerala. The change from the patrilineal to the matrilineal system was the result of the introduction of compulsory military service and the constitution of the *Chavers* (Suicide squads) during the Chola-Chera war.[3] The war also led to the decline of trade and commerce

1 See *Trichur District Gazetteer*, p. 127
2 For a detailed account of the war see the *Trivandrum* and *Trichur District Gazetteers*.
3 *Some Problems in Kerala History*, Prof. Elamkulam P. N. Kunjan Pillai, p. 15

and this adversely affected the economic prosperity of the country. The political unity of Kerala built up by the Kulasekharas in the preceding two centuries also broke up during the period. In the chaotic conditions created by the Chola-Chera war the authority of the central government became weak and various *naduvazhis* asserted their independence. It was also during this period that Jainism and Buddhism practically disappeared from Kerala and the division of Hindu society based on the system of castes and sub-castes took final shape. The Chola-Chera war of the 11th century A.D. thus marked an epoch of transition in Kerala history. The Ernakulam District along with the rest of the country was affected by these changes.

MEDIEVAL PERIOD

Origin of Perumpadappu Swarupam

If the history of the Ernakulam District from the 9th to the 12th centuries is interlinked with that of the Kulasekharas of Mahodayapuram, its history since the 12th is the history of the rise and growth of Perumpadappu Swarupam (Cochin State).[1] The Perumpadappu Mooppil had originally his headquarters at Pazhayannur (Talappilli Taluk) and later in the Perumpadappu village in Vanneri (Ponnani Taluk). He used to reside at times in another palace of his own at Thiruvanchikulam or Mahodayapuram and seems to have set up permanent residence here some time in the latter half of the 13th century in the wake of the invasion of Valluvanad by the Zamorin of Calicut. Veera Raghava Chakravarti who issued the Copper Plate Grant to Iravi Korthan from Perumkovilakam in Makotair Pattinam in 1225 A. D. seems to have been a ruler of the Perumpadappu Swarupam.[2] Till the beginning of the 15th century Mahodayapuram continued to be the headquarters of the Perumpadappu Swarupam. The literary works of the period help us to get an idea of the unrivalled position enjoyed by the Perumpadappu Mooppil among the *Naduvazhis* of Kerala and the great influence wielded by him in the public life

1 See *Trichur District Gazetteer*, (p. 131) where the different theories of the origin of the Perumpadappu Swarupam have been examined. It may be mentioned here that the history of the Ernakulam District and that of Trichur District overlap each other considerably as they are mainly centred around the Perumpadappu Swarupam. Only those aspects of the history of Perumpadappu Swarupam which have not been dealt with in the *Trichur Gazetteer* are being dealt with at length in this volume.

2 See *Trichur District Gazetteer*, pp. 134-36 where the Copper Plate Grant has been discussed.

of the country during the period following the fall of the Kulasekhara Empire. Such literary works as *Sukasandesam* composed in the first half of the 14th century and *Unniati-charitam*, *Sivavilasam* and *Vitanidrabhanam* composed towards the end of the same century give us interesting glimpses into the early history of the Perumpadappu Swarupam.[1]

Rise of Cochin

Geographical and political factors brought about the exit of the Perumpadappu Mooppil from Mahodayapuram and the establishment of his headquarters at Cochin early in the 15th century. The circumstances leading to this development were as follows. In 1341 Cranganore harbour became silted up by the heavy floods which took place in the Periyar river and it became useless for purposes of trade. Simultaneously with the decline in the importance of Cranganore the port of Cochin rose into prominence and the commercial supremacy enjoyed by Cranganore passed to Cochin.[2] Following this development the rulers of Perumpadappu Swarupam decided to shift their head-quarters from Mahodayapuram to Cochin at the earliest. In the meantime the aggressive activities of the Zamorin of Calicut gave them the incentive to implement their decision. In the 13th and 14th centuries the Zamorins considerably increased their political power and became the master of a vast dominion in northern and central Kerala. The *Kokasandesam* composed about 1400 A.D. makes it clear that by the end of the 14th century Thrikkanamathilakam near Thiruvanchikulam had come into the hands of the Zamorin and that the *Eralpad* or heir-apparent to the throne of Calicut had set up his residence there. The aggressive thrusts of the Zamorin posed a serious threat to the Perumpadappu Swarupam and precipitated the immediate transfer of its headquarters from Thiruvanchikulam to Cochin which was far beyond the immediate reach of the Zamorin's forces. This event should have taken place about 1405 A.D.[3]

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1 The *Sukasandesam* was the work of one Lakshmidasa, a Namboothiri Brahmin who belonged to the Karingampilli Mana situated near the temple of Thripputhamangalam near Vellarapilli in this District. (Vide *Cochin Rajyacharitram*, K. P. Padmanabha Menon, Vol. I, p. 526)

2 Attention is invited to the *Trichur District Gazetteer*, pp. 136-38, where the origin of the *Puthuvaipu* Era has been discussed. The floods in the Periyar which resulted in the decline of Cranganore and the rise of Cochin also seem to have led to the emergence of the island of Vaipin in the Ernakulam District.

3 In later periods of its history other places in this District like Njarakkal, Udayamperur Palluruthi, Vellarapilli, and Thrippunithura also served as headquarters of the Perumpadappu Swarupam. Reasons for these frequent changes of capital and the exact periods for which each of these places served as capital are not known.

Ma Huan and his Account of Cochin

When Ma Huan, a Chinese Muslim attached to the suite of Cheng Ho, the Envoy of Emperor Yong Lo (1403 to 1425 A.D.) to foreign countries, visited Cochin in 1409 A.D. the ruler of Perumpadappu Swarupam had already set up his headquarters there. Ma Huan, who is the first foreign traveller to give an account of Cochin, gives us the following details of the sea port as well as of the ruler and people of Cochin.

"Cochin, the first port of which we shall treat, is described as a day and night's sail from Coilum, the present Quilon, most probably the Kaulam Malai of the Arabs known to Chinese navigators of the Tang Dynasty (A.D. 618-915), as Muhlai. The king or ruler is of the solar race, and is a sincere believer in Buddhism, and has the greatest reverence for elephants and oxen, and every morning at daylight prostrates himself before an image of Buddha. The king wears no clothing on the upper part of his person; he has simply a square piece of silk wound round his loins, kept in place by a coloured waist-band of the same material, and on his head a turban of yellow or white cotton cloth. The dress of the officers and the rich differs but little from that of the king. The houses are built of the wood of the cocoanut tree, and thatched with its leaves, which render them perfectly watertight.

"There are five classes of men in this kingdom. The Nayars rank with the king. In the first class are those who shave their heads, and have a thread or string hanging over their shoulder; these are looked upon as belonging to the noblest families. In the second are the Mahomedans; in the third the Chittis, who are the capitalists; in the fourth the Kolings, who act as commission agents; in the fifth the Mukwas, who are the lowest and poorest of all. The Mukwas live in houses which are forbidden by the Government to be more than three feet high, and they are not allowed to wear long garments; when abroad, if they happen to meet a Nayar or a Chitti, they at once prosprate themselves on the ground and dare not rise until they have passed by; these Mukwas get their living by fishing and carrying burdens.

"The merchants of this country carry on their business as pedlars do in China. Here also is another class of men, called Chokis (Yogi) who lead austere lives like the Taoists of China, but who, however, are married. These men from the time they are born do not have their heads shaved or combed, but plait their hair into several tails, which hang over their shoulders; they wear no clothes, but round their waists they fasten a strip of rattan, over which they hang a piece of white calico; they carry a conch-shell, which they blow as they go along the road: they are accompanied by their wives, who simply wear a small bit of cotton cloth round their loins. Alms of rice and money are given to them by the people whose houses they visit.

"In this country there are two seasons, the wet and the dry. In the first two months of the rainy season there are only passing showers, during which time the people lay in a stock of provisions; in the next two months there is a continual downpour, day and night, so that the streets and market places are like rivers, and no one is able to go out of doors; during the last two months the rain gradually ceases, and then not a drop falls for another six months. The soil is unproductive; pepper, however, grows on the hills and is extensively cultivated; this article is sold at five tales the P'o-ho, which is four hundred Cattis of Chinese weight.

"All trading transactions are carried on by the Chittis, who buy the pepper from the farmers when it is ripe, and sell it to foreign ships when they pass by. They also buy and collect precious stones and other costly wears. A pearl weighing three and a half candareens can be bought for a hundred ounces of silver. Coral is sold by the Catti; inferior pieces of coral are cut into beads and polished by skilled workmen; these are also sold by weight. The coinage of the country is a gold piece, called fanam, weighing one candareen; there is also a little silver coin called Taurh, which is used for making small purchases in the market. Fifteen Ta-urhs make a Fanam. There are no asses or geese in this country, and there is neither wheat nor barley; rice, maize, hemp, and millet abound. Articles of tribute are sent to China by our ships on their return voyage".

Nicolo Conti

In the early part of the 15th century Nicolo Conti, the Italian traveller, also visited the place. He arrived at Cochin (Cocym) in 1440 A.D. after a journey of three days from Quilon (Coloen). The following account of Cochin as given by Nicolo Conti may be of interest in this connection.

"This city is five miles in circumference, and stands at the mouth of a river, from which it derives its name. Sailing for some time in this river, he saw many fires lighted along the banks, and thought that they were made by fishermen. But those who were with him in the ship exclaimed, sailing, 'Icepe! Icepe!'. These have the human form, but may be called either fishes or monsters which issuing from the water at night collect wood and, procuring fire by striking one stone against another, ignite it and burn it near the water; the fishes attracted by the light, swim towards it in great numbers, when the monsters who like hid in the water, seize them and devour them They said that some which they had taken, both male and female, differed in no respect as to their form from human beings."

Nicolo Conti found at Cochin the same fruits as were found at Quilon and these were the jack fruit, the mango and the pepper. For about a century and a half after the formation of the harbour Cochin was the permier port on the west coast. It carried on brisk trade with China, Arabia, Persia

and with the coastal towns of Western India and neighbouring countries. The whole country was enriched by this prosperous trade. However, in course of time there was acute rivalry between Calicut and Cochin. This is testified to by the writings of the early Portuguese.

> "Cochin was then the capital of a kingdom of the same name, nineteen leagues south of Calicut. It stood upon a river, was very strong, and had a safe and capacious port. The land about it was low, and divided into many islands. It was built after the manner of Calicut and inhabited with Gentiles and Moors who came from sundry parts to trade. There were two, each of whom had fifty ships. Provisions were not plenty. But here was pepper enough most of that which was at Calicut being brought from hence. Yet the greater resort of merchants was at this latter place which was therefore the richer of the two."[1]

Beginnings of the Conflict between Cochin and Calicut

Before tracing the political history of the District after the arrival of the Portuguese, it is necessary to analyse the causes of the deep rivalry between Cochin and Calicut which was for long the governing factor in the politics of medieval Kerala. In the 13th and 14th centuries Arab merchants settled in large numbers in Calicut and its neighbourhood, and they helped the Zamorin with men and money to expand his dominion at the expense of the petty chiefs in the neighbourhood. The ruler of Cochin viewed the rise of the Zamorin with alarm but was not able to check the aggressive advance of the forces of Calicut. By the beginning of the 15th century the Zamorin had grown in power and prestige and acquired suzerainty over the ruler of Cochin. Apart from the help received from the Arab merchants at Calicut there were two other factors which helped the Zamorin in extending his influence to Central Kerala. Firstly, internal strife was most actue among the members of the Perumpadappu Swarupam, the family having split itself up into five *Thavazhis*, viz., *Mootha*, *Elaya*, Palluruthi, Madathumkil or Muringil and Chazhur *Thavazhis*. Secondly, the Cochin ruler had to face the inveterate enmity of the Chief of Edappilli,[2] (Elangallur Swarupam). The tract of land which comprised the present towns of Cochin and Mattancherri and their suburbs belonged originally to Edappilli. Some time about 1400 A.D. the chief of Edappilli made a gift of

1 Astley, *Collection of Voyages*, p. 33, quoted in the *History of Kerala*, Vol. I, K. P. Padmanabha Menon, p. 167

2 The "Repolin" of Portuguese and Dutch writers.

it to the ruler of Cochin who happened to be his own son. His successors never reconciled themselves to this cession of territory to the ruler of Cochin and made repeated though futile attempts to regain it. As a last resort they appealed to the Zamorin for help and in all his subsequent wars with Cochin the Zamorin could get in the ruler of Edappilli a loyal and stead-fast ally whose territory was of considerable strategic importance. To make matters easier for him, he had also the advantage of having the chief of Cranganore as his ally. Cranganore commanded the shortest route to Cochin and controlled also a large part of the island of Chettuvai. The Zamorin's possession of Cranganore and his alliance with its chief provided him with a decisive advantage over the Cochin ruler. All these circumstances helped Calicut in its campaigns against Cochin.

Cochin on the eve of Portuguese Arrival

Towards the close of the 15th century the internal dissensions in the Perumpadappu Swarupam gave an opportunity to the Zamorin to interfere in its affairs and effect further territorial conquests. The *Elaya Thavazhi* was for long holding the reins of power. It had managed to gather around it the nobility and people of the realm. It seemed as though even the succession to the Cochin throne was reserved to this *Thavazhi*, the other branches being treated merely as collaterals from which adoptions were to be made to the *Elaya Thavazhi* whenever necessary. The Mootha Thavazhi which resented the prolonged ascendancy of the *Elaya Thavazhi* sought the help of the Zamorin against the reigning Raja. The Zamorin promptly responded to this appeal for help and marched to the south at the head of a large army. Having defeated the Raja and occupied his palace at Trichur he installed his partisan on the Cochin throne.[1] The new ruler accepted the Zamorin's suzerainty and undertook to pay him annual tribute. He also undertook to send all his pepper and other merchandise to Calicut to be sold only through that port. Thus on the eve of the arrival of the Portuguese in Kerala, Cochin was a petty principality dependent on Calicut.[2] The succession to Cochin throne was thereafter settled by the Zamorin. The *Anchikaimals* or the 'five nobles' who held sway over Ernakulam and

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1 See *Trichur District Gazetteer*, p. 140-41

2 For a detailed account of the political conditions of Kerala on the eve of the arrival of the Portuguese see *Kozhikode District Gazetteer* pp. 96-97

neighbouring territories on the coast also proclaimed their allegiance to the Zamorin and repudiated the authority of the Cochin Raja. It was when the Cochin ruler was living in such humiliating circumstances that the Portuguese Admiral Cabral landed at Cochin on the 24th December 1500. The ruler Unni Goda Varma seized this opportunity to free himself of the yoke of Calicut with Portuguese help.

Cabral in Cochin (1500)

Cabral had come to Cochin after his bitter and unpleasant experiences with the Zamorin and the Arabs at Calicut.[1] He therefore expected to achieve a great deal from his meeting with the Cochin Raja. At Cochin Cabral sent on shore a Malayalee Christian named Michael Jogue who had taken passage in one of his vessels to visit Rome and the Holy Land. Accompanied by a Portuguese gentleman Michael Jogue interviewed the Cochin Raja Unni Rama Koil I in his palace.[2] The king received the emissary with great friendliness and expressed himself in favour of the Portuguese being allowed to purchase from Cochin whatever they wanted. A formal meeting between the Cochin ruler and Cabral then followed and a treaty of friendship was signed. The Cochin Raja granted permission to the Portuguese to build a factory at Cochin while the Portuguese promised to free the Raja of the Zamorin's yoke and even to add Calicut to his dominion at some future date. As the Portuguese ships were being loaded with merchandise, Cabral suggested to the Raja that it would be helpful if he were to send a few leading Nairs to the ships as hostages. The Cochin ruler meekly accepted the suggestion. The ships were loaded within a fortnight without much difficulty and Cabral made arrangements for his departure. At this time the Calicut fleet carrying 1,500 men appeared off the Cochin Coast and Cabral left in panic, taking with him even the Nair hostages who

1 See *Kozhikode District Gazetteer*, p. 102

2 The *Cochin State Manual* gives the name of the Cochin Raja of the period as Goda Varma or Unni Goda Varma Thirumulpad and this was given in the *Trichur District Gazetteer* compiled earlier in the present series. But according to the chronological list of the Rajas of Cochin published in the *Records in Oriental Languages, Cochin State* (Part I) the name of the ruler is Unni Rama Koil I. He abdicated in 1503 and was succeeded by Unni Rama Koil II. Though bound by convention to retire in 1510, he continued to rule with Portuguese help till 1537. The genealogical list given in the *Grandhavari* is being adopted in the compilation of this Chapter. The names of all the rulers of the Cochin royal houses are given in the genealogical list included as an Appendix at the end of this chapter.

were on board the ships.[1] Prior to his departure the Cochin Raja entrusted to Cabral a letter of friendship written in gold leaf to be delivered to the king of Portugal. He also entrusted to him a rich collar of pearls and precious stones, and a box full of rich white silk to be presented to the Queen. Cabral returned to Lisbon with a rich cargo after touching Cannanore on the way, but he lost 7 of his 13 ships on the high seas.

Vasco Da Gama in Cochin (1502)

Cabral's activities at Cochin constitute the first chapter in the history of European contacts with the place. The Cochin Raja was displeased with Cabral for carrying off the hostages, but being anxious to get Portuguese assistance to free himself from the domination of the Zamorin he took no reprisals against the Portuguese left on shore. He even allowed them to sleep within the walls of the palace and provided a guard of Nairs to protect them wherever they went. Joao Da Nova, the next Portuguese captain who arrived at Cochin (1501), was also received by the ruler with great warmth. But Da Nova had to meet the hostility of the Zamorin during his expedition and the king of Portugal who became indignant on receipt of this information sent a fleet of 20 ships under Vasco Da Gama to retaliate against the Zamorin and establish Portuguese supremacy in the Arabian sea. After bombarding Calicut and annihilating the Arab merchant fleet on the way Vasco Da Gama arrived at Cochin on the 7th November 1502. He visited the Cochin ruler in his palace and was received with great cordiality. After an

1 The names of these hostages were Idikkela Menon and Parangoda Menon. The former returned to Cochin and was subsequently employed by the Portuguese as their chief interpreter. A Nair youth who is said to have been related to the Cochin ruler was also in the ship and he was also carried off by Cabral along with the hostages. His history as told by Correa is very interesting. "Cabral presented the young man to the King of Portugal, dressed in the fashion of the Nayar warriors of the time. He had picked up some knowledge of Portuguese during the voyage and spoke to the king in that language. He was at first put up with Cabral, and under a good tutor he soon learned to read and write Portuguese remarkably well. He went to the palace frequently, as the king liked to see and talk to him. One Sunday when the king was hearing mass in the Hospital Church at Lisbon, the Nayar youth stood by him, and, when the service was over, told the king that he wanted to become a Christian. He was accordingly baptised at once by Bishop Calcaditha, and was named Manuel after the king, Vasco Da Gama and Cabral standing godfathers. A house was presented to him and a handsome pension settled upon him by the king, and he lived like a fidalgo. He used to correspond regularly with the king of Cochin in Malayalam about matters relating to the two countries. He died in Portugal, and was by the king's order honourably buried in the Cathedral of Evora, his wealth being divided between the churches and his servants as provided in his will." (*Cochin State Manual* p. 62). It may be of interest to note in this connection that while Cabral left Cochin he also left on land about 30 Portuguese including Duarte Barbosa, the writer.

exchange of compliments Da Gama entrusted to the Cochin Raja the letter and presents sent to him by the king of Portugal in return for the ones the Raja had sent through Cabral.[1] The king's brother also entered the room and greeted the Admiral with extreme friendliness.[2] The Portuguese were allowed by the Raja to load their ships with merchandise. Da Gama, however, behaved in an imperious manner in his dealings with the king and dictated to him the terms for an alliance. Pepper, cardamom and other spices were to be sold to the Portuguese at a price to be fixed by the Admiral and the Raja and the Portuguese were also to be given the exclusive right of building factories and keeping garrisons at places of their choice in Cochin. The Raja accepted the terms without protest and Da Gama gave him valuable presents including a gold crown.

The tangible outcome of Vasco Da Gama's activities was that the Portuguese got at Cochin a permanent foothold for armed commerce on the Indian coast. Cochin had certain special advantages, political and commercial, which no other port on the West Coast did possess at this time. A small isolated island situated in the heart of Kerala, it provided the Portuguese with a strategic point from where they could dominate the politics and trade of the mainland. Unlike Calicut, Cochin could be easily defended from the sea, and the Portuguese with their naval superiority could therefore hardly be expelled from here by any land power. Moreover, the pepper growing areas of Kerala lay in the vicinity of the Cochin port and

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1 The presents were a goblet with a pedestal and covered with a lid which contained 2,000 cruzados, a piece of rich brocade, 24 pieces of velvets, satins and coloured damasks, and a chair covered with brocade and studded with silver nails, with cushions to match. After the conclusion of the agreement, Da Gama further presented to the king a crown of gold and a silver gilt basin ewer, and to the Prince, an enamelled collar ornamented with jewels in the form of a chain, and a round tent with double linings of coloured satin. The Raja's return presents were "two gold bracelets set with precious stones, a sash or turban used by the Moors of cloth of silver, two great pieces of Bengal cotton cloth, and a stone as large as a walnut taken from the head of an animal called bulgoldolf, which is exceedingly rare and is said to be an antidote against all kinds of poison." The last seems to be gorochana (*Torenia Cordifolia*) (*Cochin State Manual* p. 64.)

2 "The Prince then entered, who came from without to see the Captain-Major. When he entered with his sword and buckler, he placed himself before the king, with his feet close together, and laid down his buckler against his legs, and put his sword under his arm, and joined his hands together, raising them above his head, and lowered them closed together to his breast. When he entered, the Captain-Major remained all the time standing until the prince had finished his salutations to the king; then he turned towards the Captain-Major, who saluted him with his knee on the ground. The prince took his right hand between his, as the king had done, and spoke to him words of friendship." (*The Three Voyages of Vasco Da Gama*, by the Hon. H.E.J. Stanley, p. 342, quoted in the *Cochin State Manual*., p. 64.)

and this helped the Portuguese to get in due course the monopoly of the pepper trade of the land. The territory around Cochin also presented a political vacuum as there was no major power in the area capable of exercising centralised authority. Apart from the principality of Cochin which itself was weak there were a number of small chiefs in the region who were at loggerheads with one another. The chiefs of Mangat, Parur, Vadakkumkur, Edappilli and Shertallai and the five Kaimals who controlled Ernakulam and suburbs were the most prominent of these. They were so jealous of one another that they were not in a position to forge a united front even against a foreign power. Hence from their foothold at Cochin the Portuguese could dominate the entire area in the neighbourhood and intimidate the local chiefs into submission one after the other.

Zamorin's Invasion of Cochin (1503)

The Portuguese triumphs at Cochin alarmed the Zamorin of Calicut. Having made elaborate preparations for a show-down he confronted the Cochin ruler with a virtual ultimatum. In 1503 the Raja was asked to surrender all the Portuguese factors left under his protection. On his refusal to comply with this demand, the Zamorin marched into the heart of the Cochin kingdom at the head of a large army. The war between Calicut and Cochin began on 1st March 1503. In the early stages the Cochin ruler could hold his own mainly because of the help received from the Portuguese under Lorenco Moreno. The fort at Edappilli was the immediate target of the Zamorin's attack. The Calicut army consisting of 50,000 men stormed the fort and entered Cochin territory on the 31st March 1503. At this time Vincent Sodre arrived at Cochin with his naval squadron. The Cochin Raja who was hard pressed approached him for help, but he turned a deaf ear to all his entreaties and sailed for the Red Sea on the plea that he had received orders only to intercept the Arab ships trading with India. In the meantime the Cochin ruler managed to muster an army of 5,500 men under the command of his brother.[1] It was sent to guard the ford to Palluruthi through which the Zamorin had launched a forward thrust. In spite of the superiority of

1 This brother was the prince whom Vasco Da Gama saw with the king and was considered the "bravest and most fortunate warrior in Malabar." The Portuguese writers give the name of the prince as Naramuhin. Most English writers identify Naramuhin as Narayanan. As no Kshatriya ruler of Malabar has assumed the name Narayanan the author of the *Cochin State Manual* has expressed the view that the term is a corruption of the *Nalamkura* (Fourth Raja) or *Marumakan* (Nephew) *Cochin State Manual*, C. Achutha Menon, p. 66

his army in numbers the Calicut chief had to withdraw with considerable loss. The Raja of Edappilli who also ventured to force a passage by the ford was repulsed with serious loss. At last the Zamorin won over to his side the paymaster of the Cochin army and fomented discontent in the ranks of the Cochin forces. He then made a determined assault on the Cochin kingdom both by land and sea and almost annihilated the Cochin army. The heir-apparent and two other princes of the Cochin royal family and several members of the noblest families in Cochin perished in the fight. Only two hundred men survived the tragic disaster. The Cochin Raja again raised a small army and continued resistance. But the odds were against him and he was soon forced to take refuge with his few remaining troops, his family and the Portuguese allies in a temple in the island of Vaipin.[1] Most probably the temple in which the Cochin Raja took refuge was the one at Elangunnapuzha. As it was considered an act of sacrilege to carry the fight into the *Sanketam* or sanctuary of the temple, the Zamorin ordered the town of Cochin to be burnt and the island of Vaipin to be blockaded. Meanwhile, the monsoon set in and the Calicut army had to raise the blockade and return to Cochin. Cochin was fortified with a ditch and rampart and a strong garrison was also stationed there. Thereafter the Zamorin departed for Calicut intending to return and renew the blockade after the Onam festival in August.

Portuguese Triumph at Cochin (1503)

In the meantime a small Portuguese fleet arrived in Indian waters under the leadership of Francisco De Albuquerque. Francisco reached Cochin on the 2nd September, 1503 and was soon joined at Vaipin by another vessel under Duarte Pacheco. The beleaguered garrison at Vaipin welcomed the arrival of reinforcements with great joy while the Calicut army at Cochin was struck with terror and left the city in panic. Francisco thanked the ruler of Cochin for the steadfast help, presented him with 10,000 ducats and conducted him triumphantly to Cochin where he was re-established in the possession of his kingdom. At this time he was joined by his cousin Alfonso De Albuquerque who had arrived with

1 Among the Portuguese in Cochin at this time were two Italian lapidaries, Peso Antonio and Joao Maria. They deserted the Portuguese and joined the Zamorin while this retreat to Vaipin was being made. These Italians later rendered immense service to the Zamorin in making cannon and other fire arms and training soldiers in their use. See *Kozhikode District Gazetteer*, p. 104

another fleet in Indian waters. Together they attacked Edappilli and other places whose chieftains had fought against Cochin on the side of the Zamorin. The Portuguese army committed the worst atrocities during this campaign. They slaughtered the inhabitants in large numbers and indiscriminately burnt down towns and villages. The domain of the Raja of Edappilli which consisted of small isolated tracts scattered over a large area suffered the worst attack, plunder and destruction. Temples were looted and women and children were carried into slavery.

Fort Manuel

After having reestablished the authority of the Cochin ruler the Portuguese extracted concessions from him. By this time Unni Rama Koil I had abdicated and his surviving nephew Unni Rama Koil II had assumed the reins of power. The Portuguese impressed upon the Raja the need for dealing with his chiefs. To start with, he entered into a treaty with the Anchikaimals, the five lords who held sway over Ernakulam and suburbs. The Kaimals repudiated their allegiance to the Zamorin and accepted the Cochin Raja's suzerainty over them. "This treaty", says K. M. Panikkar, "is of great importance because it is the first testimony of the course, which the Portuguese attempted to follow as a part of their policy, that of aggrandising their power with the small chieftains under the cover of the nominal suzerainty of the Cochin Raja."[1] The Portuguese also obtained permission from the Raja to erect a fort at Cochin for the protection of their factory. A convenient spot close to the edge of the river and commanding a narrow arm of the sea was chosen for the purpose and the foundation stone was laid on the 27th September, 1503. The Raja supplied all the materials necessary for the construction and also sent the requisite number of workmen to carry out the work. The fort was a square structure of 183 yards surrounded by a deep moat. The Raja himself often went to the site to inspect the progress of the work and encouraged the workmen. The fort, when completed, was christened *Manuel Kotta* or Fort Manuel after the reigning king of Portugal and was opened with due ceremony, the Cochin Raja himself being present on the occasion. It may be mentioned here that Fort Manuel was the first fortress constructed by Europeans in India.

1 A *History of Kerala*, K. M. Panikkar, p. 56

Pacheco and the Defence of Cochin (1504)

The two Albuquerques left India in 1504. A few vessels and a small army of 150 Portuguese and 300 native soldiers under Duarte Pacheco were left behind to defend Cochin. The Zamorin seized this opportunity to try his strength with the Portuguese and reduce Cochin to subjection. His first move was to starve Cochin into submission by prohibiting all trade in rice with that port with the help of friendly Muslim merchants. But this was thwarted by the resourceful Pacheco who kidnapped the leading Muslim merchant of Cochin and his family and held them as hostages for rice supply till a crisis was averted. The Zamorin then embarked on a large scale military campaign. He collected a fleet of 280 vessels manned by a crew of 4,000 men, mostly Muslims and a land army of 60,000 men under the command of Elangur Nambiathiri, the Zamorin's heir and the Raja of Edappilli. He had also five big guns which had been specially made for him by the Italian deserters. At the head of this large force the Zamorin marched through the territories of friendly chiefs towards Kumbalam near which there was a ford to the island of Cochin. His plan was to cross the backwater ferry, with the help of his fleet of boats, from Kumbalam to Palluruthi and advance northwards in a bold bid to capture the Cochin fort. But it was completely frustrated by the timely and courageous action of the Portuguese captain. With a small force of 150 European and 300 native soldiers assisted by detachments of Nair soldiers sent by the Cochin Raja, Duarte Pacheco gallantly defended the fort of Cochin against the mighty power of the Zamorin and his allies. Pacheco's defence of Cochin was a brilliant feat of arms and he takes his place "in point of view of military ability, resourcefulness and skill with Clive, De Bussy and Wellington in the history of the Indo-European relations."[1] He made a thorough study of the military topography of the area and decided upon his plan of action sufficiently in advance. Apart from such advantages as superiority in numbers and efficiency of arms, Pacheco had also the advantage of unerring military intelligence. He erected a stockade in the middle of the river running the whole length of the ford just in time to frustrate the attempts of the Zamorin to cross it. The first bid to force the passage to Palluruthi was made on 31st March 1504, but the Zamorin was driven back with great loss. Similar attempts made on the 5th April and again

1 *A History of Kerala*, K. M. Panikkar, p. 57

on the 10th were also repulsed. For over 3 months and a half the Zamorin made repeated attempts to break through the defence but Pacheco and his men inflicted successive defeats on him and his men. To make the situation more difficult a severe outbreak of cholera in the Calicut camp carried off 13,000 men and the Zamorin was forced to return home in despair. The war which had lasted for 5 months came to an abrupt end, the Calicut army losing 19,000 men in battle and 13,000 men by cholera. Pacheco returned in triumph to Cochin where the Raja gave him a hero's welcome.[1]

The Zamorin's discomfiture at Cochin was soon followed by his discomfiture at Cranganore (Trichur District). In 1504 the Portuguese captured Cranganore and eventually fortified the town.[2] The Jews who had made Cranganore their headquarters for several centuries left the place in the wake of Portuguese occupation and settled at Cochin and the surrounding areas. The Raja of Cranganore also entered into an alliance with the Portuguese in due course and became independent of the Zamorin. With their victories at Cochin and Cranganore the Portuguese had won the first round of their fight in Kerala. K. M. Panikkar sums up the position of the Portuguese in Kerala at this time as follows. "In the first round of the fight, the Portuguese were not able to establish themselves as a Kerala power. But it became clear that there was no possibility of driving them away from the Indian coast. They had gained the right to trade; and by the relations entered into with Cochin, Quilon and Cannanore, they had secured considerable commercial interests. Neither on sea, nor on land were they the masters; but the Moors, the Zamorin and the other Indian powers recognised after 4 years of fight, that a new and incalculable factor had been added to the already complicated politics of India."[3]

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1 Pacheco was honoured by the king Unni Rama Koil. The grant to the Portuguese captain runs as follows. "We Kerala Unni Rama Koil Thirumulpad, King of Cochin, sovereign of Adavil Cherriveppel, Nedungad, in remembrance that when the Zamorin Raja attacked us, in Meenam month 679 (Malayalam Era) Pacheco defended us and brought victory to our arms; therefore we grant to him and to his descendants in perpetuity engraved on his shield the five crowns indicative of the five Kings he defeated and seven weapons to indicate the seven battles with the Zamorin. In the handwriting of Chirikandan" (*Kerala Pazhama*, pp. 65-66 quoted in *A History of Kerala*, K. M. Panikkar. p. 58.)

2 See *Trichur District Gazetteer* (pp. 143-145)

3 *A History of Kerala*, K. M. Panikkar, p. 60

Almieda (1505-1509)

The Portuguese interests in the East had now reached such a stage that it was found necessary to appoint a Viceroy to look after those interests in India. Francisco D' Almieda was accordingly appointed the first Portuguese Viceroy for a period of three years. He arrived at Cochin in November 1505. He presented to the Raja Unni Rama Koil II on behalf of the king of Portugal a crown of gold set with jewels in recognition of his services to the Portuguese against their enemies. He also arranged for an annual payment of 500 crusados to the king. The Raja reciprocated by granting permission to the Portuguese to extend and strengthen their fort at Cochin. A larger fort was soon built of mud and stone with bastions on all sides mounted with ordnance and with ample space for locating the Government house and the arsenal. Almieda also set up his principal residence at Cochin and constituted it into the seat of Portuguese Government in India. The Portuguese also began to settle down at the place in large numbers. In 1509 Almieda was superseded by Alfonso D' Albuquerque.[1]

Disputed Succession in Cochin

Unni Rama Koil I, the friend of the Portuguese, who had earlier abdicated the throne, died in 1510. According to the custom of the country Unni Rama Koil II should have now become a religious recluse and made room for the prince next in succession. As this prince belonged to the *Mootha Thavazhi* branch and was a partisan of the Zamorin, the Portuguese in Cochin objected to the proposed arrangement and insisted upon Unni Rama Koil II continuing as the ruler. The *Mootha Thavazhi* princes arrived at Vaipin with their partisans and a detachment of the Zamorin's forces in order to enforce their claim. Albuquerque who was at Cannanore immediately rushed to Cochin and defeated the princes and their army. Unni Rama Koil II continued to rule with Portuguese help. From now onwards a convention was in force for about a century and a half that the succession to the throne of Cochin should be confined to the *Elaya Thavazhi* branch, the Portuguese refusing

1 For a more detailed account of Almieda and his policies see *Kozhikode District Gazetteer* (pp. 105-106)

to recognise the right of any other branch to ascend the *Musnad*.[1]

Albuquerque (1509-1515)

Albuquerque reversed several of the policies of his predecessor to the great annoyance of the Cochin Raja.[2] In 1513 he entered into a formal treaty with the Zamorin of Calicut, the traditional enemy of the Portuguese and the Cochin Raja. According to this treaty the Portuguese were allowed to build at Calicut a fortress of the same size as the one at Cochin. The Raja of Cochin protested in vain against this treaty and even wrote a long letter of complaint to the King of Portugal.[3] Another action of Albuquerque which caused dissatisfaction to the Cochin ruler was the transfer of the headquarters of the Portuguese Government in India from Cochin to Goa in 1510. The Cochin Raja was annoyed at this development because he was afraid that Goa would grow rapidly in importance throwing Cochin into shade.

Albuquerque also introduced several administrative reforms. He persuaded Portuguese citizens to marry native women and settle down in India. His object in doing so was to create a body of people who could be depended upon to defend Portuguese possessions in India with loyalty. He also enlisted Indians in the army and gave them western drill and training. Private trade was suppressed and corrupt officials were dismissed and sent back to Portugal. These officers who became enemies of Albuquerque spread slanderous tales about him at home. He was consequently superseded in September 1515 and died of a broken heart at Goa on 17th December. It is also worth mentioning here that before his supersession Albuquerque had made an abortive attempt to convert the ruler Unni Rama Koil II to Christianity.

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1 Sometime after this the oldest member of all the branches taken together, if senior to the reigning prince of the *Elay Thavazhi*, was allowed to assume the title of *Mooppu* or Chief of Perumpadappu, the reigning prince being known as the Raja of Cochin. The *Mooppu* was treated as an important personage and exercised some authority in social and religious matters.

2 See *Kozhikode District Gazetteer*, pp. 105-9 for a more detailed account of the Viceroyalty of Albuquerque and the administrative measures intorduced by him.

3 In the letter referred to the Raja wrote as follows "Your Majesty has concluded a treaty with this king (the Zamorin) without in any way consulting me. *I will have no peace with him, but will always wage war with him.* I thought that that Your Majesty was aggrieved at the death of my uncles and that you would assist me in avenging it. This peace has only been concluded to insult me, and Your Majesty should not have exchanged my friendship for that of Calicut." Quoted from the *Cochin State Manual*, p. 76

Albuquerque's immediate successors Lopo Soares (1515-1518), De Sequeira (1518-22) and Duarte D' Meneses (1522-24) were incompetent and dishonest men and during their administration the prestige of the Portuguese suffered heavily. The only important development of the period was an unsuccessful attempt on the part of the Cochin Raja to attack Calicut (1521).

Vasco Da Gama again

In 1524 the Portuguese Government sent Vasco Da Gama back to India as the Viceroy of their dominion. He arrived at Goa in September 1524. Da Gama's Viceroyalty lasted only for two months. During this period he visited Cochin and was received by the ruler with great cordiality. Da Gama died on the 24th December and was accorded a princely funeral in the principal chapel of St. Antonio in Cochin.[1]

Dynastic History of Cochin in the Portuguese Period

Unni Rama Koil I was the first ruler of Cochin during the Portuguese period. During his reign the Portuguese under Cabral landed in Cochin and established friendly relations with the Raja. As stated earlier, this ruler abdicated the throne in 1503. The reign of his successor, Unni Rama Koil II (1503-1537), saw the rise of Cochin into prominence as an important power in the politics of Kerala. The constant support received from the Portuguese alone helped Cochin to attain this prominent position. The next ruler was Vira Kerala Varma (1537-65). During his reign St. Francis Xavier seems to have arrived at Cochin (1544) on his way to the scene of his activities in South Travancore. The relations between the Portuguese and Cochin were very friendly in the early part of his reign. But in 1549 the Portuguese plundered a rich temple at Palluruthi which was held in veneration by the Raja. This naturally strained the relations between Cochin and the Portuguese. The reign also saw a war with Vadakkumkur,[2] the feudatory of the Zamorin. In the battle that took place at Vaduthala the Vadakkumkur Raja was killed and his troops fled in confusion. The Vadakkumkur army rallied again and

1 In 1538 the mortal remains of Da Gama were taken to Lisbon where they were laid to rest with great pomp and demonstration in the great Cathedral of St. *Jeronymus* in Belem which was built with the money sent from India.

2 *Pimienta* of Portuguese and Dutch writers.

invaded Cochin. The Portuguese and the Cochin Raja had to take refuge in the fort.[1] It was also during the reign of Vira Kerala Varma that the Portuguese built the Mattancherri palace about 1555 and presented it to the ruler. In 1560 at the instance of the Portuguese Vira Kerala Varma withdrew the ban imposed early in the Portuguese period on conversions to Christianity from the Cochin kingdom. This ruler was also the patron of Nilakanta, the author of the Malayalam *Champu, Tenkailanathodayam.*[2]

Kesava Rama Varma, the most celebrated Raja of the Portuguese period, succeeded Vira Kerala Varma. He had a long and eventful reign of 36 years (1565-1601). This ruler has been identified with the Rama Varma whose inscription dated 1575 A.D. is seen in the Chidambaram temple. Kesava Rama Varma was perhaps the patron of Balakavi who wrote the *Ramavarmavilasa* and *Ratnaketudaya*. The learned Nambuthiris of the Mazhamangalam (Mahishamangalam) family also seem to have been patronised by him.[3] Narayana, the most famous of them, wrote the *Rajaratnavaleeyam Champu* in Malayalam in praise of this ruler. He is also the author of the famous *Naishadha Champu* in the same language. The most important political events of the reign may also be briefly mentioned. In 1565 the Jews left Cranganore *en masse* as a result of Portuguese persecution and settled down at Cochin and Ernakulam. To the south of the Raja's palace in Mattancherri, they built in 1567 what came to be called in later years the "Jew Town". In 1581 the first Viceroy nominated by the Spanish Government arrived, Spain having annexed Portugal in 1578. In 1584 the Viceroy Duarte De Menezes arbitrarily got the king to assign over to the Portuguese the whole of the customs duties levied at Cochin which had hitherto been enjoyed by the ruler. The people who resented the arrangement rose in revolt and the Portuguese had to give up the right obtained earlier. Another notable event of the regin was the famous Synod of

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1 There seems to have been some confusion as to whether the King of Thekkumkur or Vadakkumkur was involved in this campaign. The *Cochin State Manual* identified the ruler who was mortally wounded in the battle of Vaduthala with the king of Thekkumkur (*Cochin State Manual*, p. 163). This identification is incorrect. K. M. Panikkar in his *A History of Kerala* identifies him with the Vadakkumkur Raja. The *Perumpadappu Swarupam Grandhavari* (Records in Oriental Languages, Part I) also refers to the Raja of Vadakkumkur as having been killed in the battle. According to this publication it was the soldiers (Amoucos) of Vadakkumkur who swore vengeance on the Cochin Raja that eventually murdered Vira Kerala Varma at Putiyakavu on February 10, 1565.

2 *The Contribution of Kerala to Sanskrit Literature*, Dr. K. K. Raja, p. 154

3 *Ibid.*, p. 155

4 *Ibid.*, pp. 155-160. See also *Trichur District Gazetteer*, p. 148

Diamper (Udayamperur) convened by Alexis De Menezes, the Archbishop of Goa, to extirpate the schism in the Malabar Church and establish the supremacy of the Latin rite. Kesava Rama Varma undertook a pilgrimage to Benares in his old age and he died there on May 3, 1601.

The immediate successors of Kesava Rama Varma were Vira Kerala Varma (1601-1615), Ravi Varma (1615-1624) and Vira Kerala Varma (1624-1637). Their reigns were uneventful. It may, however, be mentioned that Vira Kerala Varma (1601-1615) was the patron of the celebrated Melpathoor Narayana Bhattathiri and that it was under his patronage that the Bhattathiri wrote the *Gosrinagaravarnana and Vira Keralaprasasthi*, otherwise called *Matamahisaprasasthi*. Ravi Varma was perhaps the patron of Vedantacharya, the great scholar who wrote the commentary on the *Kavyaprakasa*. Under Goda Varma (1637-1645) the territories of the Muringoor *Thavazhi* which was about to become extinct merged with those of the *Elaya Thavazhi*. Moreover, adoptions were also made to the *Elaya Thavazhi* from the *Mootha*, Palluruthi and Chazhoor *Thavazhis*. The next Raja, Vira Rayeera Varma (1645-46), had a brief and uneventful reign. His death in 1646 was the signal for the outbreak of a civil war among the members of the Cochin royal family. The Portuguese who were not favourably disposed towards the *Mootha Thavazhi* prince intervened in the fight and installed Vira Kerala Varma, the Palluruthi adoptee, on the Cochin throne. It was during the reign of this ruler (1646-55) that the Thirumala Devaswom *Sanketam* was granted to the Konkinis of Mattancherri. The next ruler was Rama Varma of the Chazhoor branch (1655-56) and his death was followed by the period of the regency of Rani Gangadhara Lakshmi (1656-58). Incidentally, it may be noted that the only Rani of the Cochin royal family who held the reins of Government was Rani Gangadhara Lakshmi. One Raghava Koil (also referred to as Raman Koil and Ramana Koil) seems to have been her Prime Minister.[1] The Rani made adoptions from the Vettat

1 Raghava Koil who has been spoken of by Bishop Sebastiani as the Chief Minister of Cochin may be identified with the Raghava Koil of Vellarapilli Kovilakam who was adopted to the Travancore Royal family in 1631. Raghava Koil dominated the politics of Cochin till the battle of Mattancherri in 1662. Wounded in the fight he escaped and joined Goda Varma at Ernakulam. As nothing is heard of him after this incident, it may not be wrong in guessing that he died of this wound shortly thereafter. See the Article on Rani Gangadhara Lakshmi and Raghava Koil by V. K. R. Menon in the *Rama Varma Research Institute Bulletin*, Vol. VIII Part I

and Ayirur Swarupams. The regency period was followed by the reign of Rama Varma (1658-62), the Vettat adoptee. At this time the Dutch had already appeared on the scene as the rivals of the Portuguese. On February 22, 1662, they captured Mattancherri palace and killed the ruler. Rani Gangadhara Lakshmi was captured prisoner by Van Rheede. Goda Varma (1662-63) who ascended the throne was also a Vettat adoptee. The most important event of his reign was the surrender of the Cochin fort on January 7, 1663 and the installation by the Dutch of Vira Kerala Varma of the *Mootha Thavazhi* branch on the throne of Cochin.

Caesar Frederick and Ralph Fitch

In the latter half of the 16th century Cochin was visited by two foreign travellers, and it would be pertinent, in this connection, to refer to the accounts they have left of the place and its people. The first of these travellers was Caesar Frederick, a Venitian merchant, who undertook a voyage to the East Indies during the period 1563 to 1581 and also visited Malabar. He describes Cochin as "the chiefest place that the Portugals have in the Indies next unto Goa", and he makes specific mention of the rich trade in spices, drugs and similar kinds of merchandise. He says that the Portuguese ships carried to Portugal from the kingdom of Cochin "great abundance of pepper, great quantities of ginger, dried and conserved, wild sinamome, good quality of arecca, great store of cordage of caire, made of the bark of the tree of the great nut and better than that hempe of which they carry great store into Portugale"[1]. The accounts left by Caesar Frederick throw some light on the special privileges enjoyed by the Portuguese in Cochin. "All that marry in Cochin do get an office according to the trade he is of: this they have by the great privileges which the citizens have of the city because there are two principal commodities that they deal withal in that place, which are these; the great store of silke that commeth from China, and the great store of sugar which commeth from Bengala: the married citizens pay not any custome for these two commodities: for all other commodities they pay four per cents custome to the king of Cochin, rating their goods at their own pleasure. Those which are not married and strangers pay in Cochin

1 *History of Kerala*, Vol. I, K. P. Padmanabha Menon, p. 170

to the king of Portugale eight per cents of all manner of merchandize".[1]

The other foreign traveller who visited Cochin was Master Ralph Fitch, the first Englishman ever to do so. To him actually belongs the honour of being the "Pioneer Englishmen", for he undertook the journey to India even before the first voyage of James Lancaster who sailed from Plymouth in 1591. He visited Cochin in 1583 and lived there for several months. "Thus passing the coast", says Fitch, "we arrived in Cochin the 22 of March, where we found the weather warm, but scarcity of victuals; for here groweth neither corne nor rice, and the greatest part commeth from Bengala. They have here very bad water, for the river is farre off. This bad water causeth many of the people to be like lepers, and many of them have their legs swollen as bigge as a man in the waste, and many of them are scant able to go. These people here be Malabars, and of the race of the Naires of Calicut; and they differ much from the other Malabars. These have their heads very foel of haire, and bound up with a string, and good archers with a long bow and a long arrow, which is their best weapon; yet there be some calivers among them, but they handle them badly".

"Here groweth the pepper; and it springeth up by a tree or pole, and is like our ivy berry, but something longer like the wheat eare; and at the first the bunches are green; and as they waxe ripe they cut them off and dry them. The leafe is much lesser than the ivy leafe and thinner. All the inhabitants here have very little houses covered with the leaves of the coco-trees. The men be of reasonable stature; the women little blacke, with a cloth bound about their middle hanging down to their hammes, all the rest of their bodies be naked: they have horrible great ears with many rings set with pearles and stones in them. The king goeth incached; as they do all: he doth not remain in a place above five or six days: he hath many houses, but they be but little; his guard is but small: he remooveth from one house to another according to their order. All the pepper of Calicut and course cinamom groweth here in this country. The best cinamom doth come from Ceylon, and it is pilled from fine yoong trees. Here are

1 *History of Kerala*, Vol. I, K. P. Padmanabha Menon, 168-69

very many palmere or coco-trees, which is their chief food: for it is their meat and drinke: and yeeldeth many other necessary things, as I have declared before"[1]. It may be noted that the beginning of English trade with the East is associated with the voyage of Ralph Fitch.

Another Englishman Sir Thomas Herbert describes Cochin on the eve of the Dutch capture as the chief place the Portuguese have in the Indies where they carried on trade in spices, drugs and all other merchandise.

PORTUGUESE AND THE MALABAR CHURCH

Introduction

The Portuguese period is of great importance in the history of the Kerala Church, the most important events occurring in the Ernakulam District. A brief survey of the Church history of the period is therefore necessary to do full justice to the scope of this chapter. According to tradition, Christianity was introduced in Kerala by Apostle St. Thomas in the second half of the first century A.D.[2] For more than twelve centuries the Church of Kerala had very little contact or connection with Europe. During that long period it was, though with occasional breaks, administered by Bishops sent by the Patriarch of Babylon from Mesopotamia[3]. It is seen that when the Malabar Church emerges into the light of history, it was using a Syriac, or what is more accurately called, a Syro-Chaldaic liturgy. It was the use of this liturgy which gave to the ancient Church of Malabar the name "Syro-Malabar Church" and to its followers the name "Syrian Christians". Due to the apostolic origin of the Syro-Malabar Church, its members were also known as St. Thomas Christians.

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1 *History of Kerala*, Vol. I, K. P. Padmanabha Menon. pp. 171-172

2 See *Trichur District Gazetteer*, pp. 99-101

3 Evidence of the connection of the Malabar Church with Persia is available from the 4th century onwards. At the celebrated Council of Nice (325 A.D.), one of the prelates assembled named Johannes, signed as "Metropolitan of Persia and of Great India". This perhaps shows that the jurisdiction of the Metropolitan of Persia extended to India where the Christians were supplied even at that time with Persian ecclesiastics. (Vide *The History of Christianity in India*, Hough, Vol. I., p. 58.). Cosmos Indicopleustus, who visited the Coast in the early part of the 6th century A.D. also testifies to the presence here of Bishops ordained in Persia (Ibid pp. 72-73.)

Portuguese Regime and the Latin Rite

The emergence of the Latin rite as a permanent factor and of its followers as a distinct entity within the Kerala Church was the direct outcome of the advent of the Portuguese. On the historic arrival of Vasco Da Gama at Cochin on December 7, 1502, and for some time after that, the Portuguese and the St. Thomas Christians cultivated very friendly relations between them. The new comers found in the land a flourishing Christian community ready to receive them with open arms. The representatives of this community even volunteered to be the vassals of the Portuguese king and presented to Vasco Da Gama the insignia of the Christian king, who, they said, had once ruled over them. Vasco Da Gama gladly welcomed the opportunity, and readily accepted the proferred submission and alliance. "He dressed his ships with flags, assembled around him his most brilliant suite, fired a salvo with all his artillery, formally accepted in the name of King of Portugal the sceptre once used by the indigenous Christian King and dismissed with gifts the Christian envoys, assuring them that fleets more powerful would shortly arrive, which would be able to free them from the molestations of their neighbours." Thus commenced the protectorate of the Portuguese king over the Christians of the Malabar coast—a protectorate which lasted for a hundred and sixty years and westernised greatly the Oriental Church of Malabar.

The initial harmony that existed between the Portuguese and the Malabar Christians was soon marred by the differences between the liturgies of the two peoples and the rites (Latin and Syrian) based upon them. The Portuguese, fanatical in all that concerned their Faith and its propagation, considered the liturgy of the St. Thomas Christians as something strange. Although at the beginning they looked upon it with favour, suspicion soon dawned upon them that this liturgy was the channel through which the 'Nestorian heresy' had entered Malabar and got itself entrenched here. To the Portuguese prelates and missionaries this question was a matter of grave concern. The best remedy they saw to this situation was to substitute the supremacy of the Pope of Rome over the Malabar

1 *History of Christianity in Travancore* by Mackenzie in *Travancore State Manual*, V. Nagam Aiya, Vol. II, p. 151

Church for that of the Patriarch of Babylon and to replace the Syro-Chaldaic liturgy of the Syro-Malabar Church with the Latin liturgy of the Catholic Church. A vigorous campaign of "Latinisation" ensued until at last there arose within the fabric of the St. Thomas Christians, till then following exclusively the Syro-Chaldaic liturgy, a body of Christians who gave up that liturgy and its rite and adopted the Latin liturgy, and thereby the Latin rite.

Methods of Latinisation

The Portuguese ecclesiastical and civil authorities, presumably with the knowledge and consent of the Raja of Cochin, resorted to various methods to achieve their aim of Latinising the Kerala Church. Spiritual ministration was one of the most important of such methods. Missions were preached, and baptisms and other sacraments administered, all according to the Latin rite, while in places like Cochin, Cranganore and Quilon, there were built stately churches, monasteries and other edifices. Moreover, with a view to providing instruction to the Syrian youths chosen from the highest families of the St. Thomas Christians and training them as Latin priests, well-equipped seminaries were founded at Cranganore (Trichur District) and Vaipicotta and in certain other places, as well as a Jesuit College at Cochin. The seminary at Cranganore was established in 1541 by the Franciscan friar Vincenzo. Here the youths from among the St. Thomas Christians were trained and ordained as Latin priests. A fine seminary though it was, many among the St. Thomas Christians became averse to the idea of their youths being educated in the Latin rite and ordained as Latin Priests. Though Mar Jacob, (known also as Abuna Jacob) the Chaldean Archbishop of the Syrian See of Ankamali at the time, seems to have favoured the Latin rite, his two successors Mar John and Mar Abraham opposed the Portuguese move and even refused to ordain the candidates trained in the seminary at Cranganore. The difficulty was, however, overcome by the Portuguese. Nevertheless, to allay such discontent, the Jesuits founded in 1577 another seminary called the "Vaipicotta Seminary", a few miles to the southwest of Cranganore. Here the students were given the option of choosing the Latin or the Syrian rite according to their personal predilections. Besides these two institutions, there was founded a third

one, which was eventually to form the chief stronghold of the Latin priestly influence. This was the Jesuit College at Cochin, the buildings of which are now used as public offices in Fort Cochin. Cochin of that time was indeed a great Latin centre. According to Baldaeus, it might "well compare with some of the best cities in Europe."[1] "The Jesuits' church and college facing the seashore had a lofty steeple and a most excellent set of bells; the college, which was three storeys high, contained about 20 or 30 apartments, being surrounded with a strong wall. The cathedral was also a noble piece of architecture, adorned with rows of pillars and a lofty steeple. The church and convent of the Augustinian Friars stood upon the bank of the river, and the church of the Dominicans with their convents were two rare pieces of workmanship, beautified with a double row of pillars of most excellent stone"[2] These institutions at Cranganore, Vaipicotta, and Cochin were the centres from which the Latin rite spread.

The position of the Christians of the Latin rite was consolidated in 1557 with the erection of a diocese for them, namely, the Diocese of Cochin, with its headquarters in Portuguese Cochin, by Pope Paul IV. The new diocese, the second Latin Bishopric in India (the first having been Quilon) and the first in modern times, was instituted as a suffragan to Goa, which was now raised to the status of an Archdiocese. The new Diocese of Cochin included all the Latin Churches from Cannanore in the north to Cape Comorin in the south as well as those on the Coromandel coast, and even those as far as Pegu and those in Ceylon. So far as Kerala was concerned, the congregation of the new diocese consisted of the Latin Christians who originally belonged to the Syro-Malabar Church as well as converts from Hinduism. These latter were mostly from the Kanyakumari-Trivandrum region in the South, the scene of the labours of European missionaries like St. Francis Xavier and numerous others.[3] Thus for the first time

1 Quoted in the *Cochin State Manual*, p. 84

2 *Ibid*, p. 84

3 It may be noted that the category of the Latin Christians formed by the Latinisation of the Syrians must be distinguished from the converts from Hinduism who came to be comprised in the Cochin diocese. The latter was a loose and unorganised conglomeration consisting mostly of Hindus from among the toiling classes brought into the Christian fold by mass conversions effected by the labours of St. Francis Xavier, and often relapsing into their old religion. But, the former were mostly a more organised body possessing the ancient traditions of the Syro-Malabar Church and socially one with the members following the Syrian rite.

in the history of the Malabar Church (excepting perhaps the infructuous instance of the former Quilon diocese) the Latin Catholics were constituted into a distinct entity, with their own Bishop and ecclesiastical organisation, which had now to function side by side with the ancient Syrian Bishopric of Ankamali and the ecclesiastical organisation of the St. Thomas Christians of the Syrian rite.

Latinising Campaign of Alexis de Menezes

Towards the close of the 16th century Portugal passed under the sovereignty of King Philip II of Spain. In 1594 there was deputed as Archbishop of Goa a young Augustinian monk named Alexis de Menezes, who landed in India in the following year. A staunch opponent of the Syro-Chaldaic liturgy of the Syro-Malabar Church and its rite, he was determined to extirpate this liturgy. In a letter written by him on December 19, 1597 to the Patriarch of Jerusalem who was in Rome at that time, he expresses the view that "although the Portuguese had always laboured to bring these Christians (Malabar Syrians) into obedience to the Roman Church, they had been for many years nourished in heresy and in Nestorian errors which they always held".[1] In the same letter he says further that "to remedy all these evils and to provide for the wants of so many thousands of souls, in order that the Holy Mother Roman Church may be obeyed by all", he proposed to visit Malabar, and also outlined a programme by which he proposed "to purify all the churches from the heresy and errors which they hold, giving them the pure doctrine of the Catholic Faith, taking from them all the heretical books that they possess, and finally to hold a synod of all the priests and to persuade them to give obedience to the Roman Church with an oath to receive the Bishop whom his Holiness will give them." To carry out this programme Archbishop Alexis de Menezes embarked from Goa on December 27, 1598, and arrived at Cochin on February 1, 1599.

Meanwhile, tension was mounting high due to the complications that arose on the death of Mar Abraham, the Syrian Bishop of Ankamali (1597). It may be noted in this connection that Mar Abraham had earlier been prevailed upon by the Portuguese to visit Goa and he had agreed to accept the authority of Rome, but his allegiance

1 Quoted by Mackenzie in *Travancore State Manual*, V. Nagam Aiya, Vol. II, p. 173

given under compulsion was insincere and short-lived. "On his death bed, when two Jesuit priests from Valpicotta offered to perform the last rites he refused and died with his face turned firmly towards Babylon. He was laid to rest in the Church at Ankamali and with him passed the last Metran of the undivided Syrian Church of Kerala".[1] Alexis de Menezes appointed Archdeacon George de Cruce as administrator of the vacant Archdiocese (Ankamali). The Archdeacon soon proved to be an inveterate enemy of Latinisation, and convened an assembly (synod) of both the clergy and the people at Ankamali in which it was decided to keep the Syro-Malabar rite and customs at all costs, according to the "Law of St. Thomas" and to refuse any bishop who had not been approved by the Patriarch of Chaldea. He said, "I am sure that the Roman Church has no more to do with the apostolic Church of St. Thomas than that Apostle has to do with the Church of Rome".[2] A schism was thus impending when Alexis de Menezes arrived on the scene and began his vigorous campaign of Latinisation. When he announced his intention of ordaining the candidates for priesthood, irrespective of whether they followed the Syrian or the Latin rite, the Archdeacon saw that it was time to come out openly against the Archbishop. He strongly protested that Menezes had not been given by the Pope any power over the Syrians, but only over the Latins, and excommunicated all those who would consent to be ordained by him. Despite the Archdeacon's retaliatory measures, the Archbishop ordained thirty-eight priests according to the forms of the Latin rite. In 1599 Menezes visited Caturte (Kadathuruthi) which was a great centre of Syrian Christian opposition to the Latin rite and conducted the ceremonies of the Easter week in Latin as well as in Syriac in order to demonstrate that he had authority over both the Latins and the Syrians. He then proceeded to take the final step of his programme, namely, the holding of a Synod (conference) to settle the fate of the Syro-Chaldaic liturgy.

Synod of Diamper

The Synod, convoked by Archbishop Alexis de Menezes, met at Diamper (Udayamperur), a village near Thripunithura, on the 20th of June 1599. The Synod of

1 *The Syrian Christians of Kerala*, S. G. Pothen, p. 42
2 *Ibid*, p. [illegible]

Diamper is one of the greatest landmarks in the history of the Malabar Church.[1] Though technically a diocesan synod it is considered to be of great importance as it dealt with and settled crucial problems of an important and distinct unit of the Catholic Church in Kerala.

The atmosphere at the Synod was tense with expectations on either side of the coming clash of ideas and plans. The Syrians were determined to see that their ancient liturgy was not abolished. They declared that they would lay down their lives rather than "pray in Latin". The Archbishop had with him many Portuguese ecclesiastics, prominent among whom was the Jesuit, Francis Roz, who was the Rector of the Vaipicotta Seminary. On the Syrian side were Archdeacon George and several *Kattanars* (Syrian priests), who had all been ordered by Archbishop Menezes to be present under threat of excommunication. Further, each village had to send four lay delegates. There were assembled in all eight hundred and thirteen delegates of whom 133 were *Kattanars* or priests, 20 were deacons, and 660 lay men chosen by the members of each church.

The proceedings of the Synod began with much pomp and impressive ceremonies, mostly according to the Latin rite. During the long sessions held on six days (20th to 26th June 1599), very many points, doctrinal and otherwise, were discussed and settled, and the conclusions were embodied in a number of Decrees each of which was passed by the delegates in sullen silence. Though Menezes was at first bent upon the abolition of the Syrian liturgy, he had eventually to agree to the suggestion of the Syrians that their ancient liturgy need not be given up, but retained (in the Syriac language) with such corrections and modifications as were found necessary to divest it of what he deemed as heresy. For making these corrections it was ordered by the Sixteenth Decree that all the Syrian books be brought to the Archbishop or to Fr. Roz, so that they might be expurgated. Heretical books were to be destroyed forthwith. Thus began a process of corrections, modifications, and cancellations of various passages in the books of the Syro-Chaldaic liturgy, and even the burning of

1 The text of the Synod of Diamper, a well written Latin copy, bound with the Coat-of Arms of Clement VIII, is still kept in the Roman archives of the Jesuits (*vide Eastern Christianity in India*, Tisserant, p. 67.). The entire proceedings of the Synod may be read in English in *The History of Christianity in India*, Vol. II, Hough (pp. 1-132)and 310-680

several of such books. Important alterations were made in respect of the Holy Mass, which is the central ceremony of the Catholic Church, whether of the Latin or the Oriental rite. The Mass of the Syriac liturgy was greatly altered, several of its versions destroyed as heretical, and finally there was settled a form which was in several respects in conformity with the Latin Mass. It is this modified form of Mass that has ever since been followed by the priests of the Syro-Malabar rite to this day. The action of the Archbishop in consigning to flames a considerable number of Syriac books was, however, an unfortunate one. As Cardinal Tisserant admits, "In India the big *auto-da-fe* ordered at Diamper was responsible for the loss of many manuscripts. Their colophons would probably have disclosed many details about the local history of the Malabar Syrians".[1]

Of much significance is the complete severance brought about by the Synod of the age-long connection of the Syro-Malabar Church with the Eastern Patriarchate of Babylon. While the supremacy of the Roman Pontiff as the only true head of the Catholic Church was clearly enunciated, the Archdeacon and his associate priests were made to swear as follows:—

> "I do also promise, vow and swear to God, on this Cross and these Holy Gospels, never to receive into this Church and Bishopric of the Serra any Bishop, Archbishop, Prelate, Pastor or Governor whatsoever, but what shall be immediately appointed by the Holy Apostolic See and the Bishop of Rome, and that whomsoever he shall appoint I shall receive and obey as my true Pastor, without expecting any message or having any further dependence upon the Patriarch of Babylon."

Thus the Synod severed the ties that bound the Malabar Church with the Persian Church and attached it to the Church of Rome. The Latin rite came to stay as a permanent factor. At the same time, the epoch of direct Latinisation of St. Thomas Christians practically ended. The two sections became more clearly defined and consolidated. Broadly speaking, those who followed the Latin rite were under the jurisdiction of the Bishop of Cochin Diocese, the only Latin diocese of the time, while those who followed the Syrian rite (now modified) were under the jurisdiction of the See of Ankamali (now vacant), the only Syrian diocese.

1 *Eastern Christianity in India*, Tisserant, p. 24

However, the lines were not rigidly drawn, as the peoples lived inter-mingled and were even blood relations. Thus for the time being peace was restored. After the Synod Archbishop Menezes accompanied by five Jesuits also visited all the important parishes as far as Quilon. He left for Goa on November 16, 1599.

Establishment of "Padroado"

Ever since the Portuguese had landed in Malabar the Malabar Church had been receiving from Portugal all help, financial and otherwise. It is this that made the Portuguese Church in Malabar so powerful. The Portuguese king was therefore recognised by one of the Decrees of the Synod of Diamper as the "Protector of the Indian Christians". He had also been requested by the Synod for substantial help for the See of Ankamali, the only See in Malabar of the time other than the Latin (Portuguese) See of Cochin. In 1600 Pope Clement VIII formally conferred upon King Philip III, now ruling over both Spain and Portugal, the right of patronage over this See also, so that besides the Latin Diocese of Cochin, the Syrian Diocese of Ankamali too became what was called a "Padroado Diocese".[1] The 'Padroado' arrangement lasted till 1838, when it was abolished by the Holy See.

Establishment of the Latin Regime over the Syrians

The peace established by the Synod of Diamper was only an uneasy trace. There arose before long new grounds of quarrel between the Syrian section of the St. Thomas Christians (the other section being Latin) and the Portuguese ecclesiastical authorities. These differences soon

1 "Padroado" was the right of patronage conceded to the kings of Portugal by successive Popes in consideration of the services they rendered to the cause of the Church in the countries of the East where the Portuguese established themselves. By this the Portuguese king nominated candidates to the bishoprics and for important dignities and benefices in every diocese in countries under Portuguese control. One of the primary aims of the Portuguese king in sending out expeditions abroad was the spread of Christianity and the promotion of the interests of the Church. This was the mission with which he charged the Portuguese Sailors, who unlike in the case of the Dutch or the English East India Companies, were in the service of the Portuguese king, and bound to act according to his dictates. In pursuance of this high mission the kings of Portugal extended unstinted support to the religious activities of the Portuguese in distant lands. It was from the state coffers of Portugal that the money needed for the maintenance of Portuguese ecclesiastics and missionaries and for the expenses of their missionary work was poured forth. In return for these services rendered by Portugal the right of patronage (*Padroado*) was conferred upon its kings by the Pope, on condition that the king would maintain the Churches and ecclesiastical and religious institutions of the diocese, procure the vestments, erect new Churches, and pay proper stipends to all the ecclesiastics, so that they might live in decent comfort.

grew into tension and ultimately into open revolt. They originated from the appointment of European (Latin) bishops—and this according to "Padroado" arrangement—over the ancient See (Archbishopric) of Ankamali which as stated earlier, had been during the past centuries, ruled by the Chaldean bishops sent from Mesopotamia by the Patriarch of Babylon, and had fallen vacant on the death of the last of such bishops, namely, Mar Abraham, in 1597, i.e., two years before the Synod of Diamper.

The idea of appointing European bishops to the See of Ankamali had long been entertained by the Portuguese, and strongly sponsored by Archbishop Alexis de Menezes himself. At the conclusion of the Synod of Diamper the Syrians were forced to acquiesce in it. Hence in 1601 the European Jesuit, Fr. Francis Roz, was appointed as the first Latin Bishop of Ankamali. In 1609 this ancient See was supplanted by a new See that was created, namely, the Archdiocese of Cranganore, with Archbishop Roz as its head and the See of Ankamali thus ceased to exist. Archbishop Roz ruled his See, both old and the new, until his death on February 18, 1624.

On the demise of Archbishop Roz, fresh clouds began to gather. The Syrians were increasingly feeling the need of a bishop of their own rite. The Jesuit administrators were autocratic and high-handed in the treatment of their flock and, in spite of the decision of the Synod of Diamper, tried to impose upon them the elements of the Latin rite. The situation, which was growing explosive, was described by the General of the Carmelite Order, who visited Malabar in 1636-37 and whose impressions have been stated by Whitehouse as follows:—

> "The enforced celibacy of the clergy, the introduction of images into their churches, and the attempts to supersede the Syrian Language by the Latin in their religious services, were specially offensive to them, as also the pride, arrogance and intolerance of the Jesuits towards all who would not conform to their injunctions"[1]

Archdeacon George and his successor Archdeacon Thomas de Campo carried on a vigorous propaganda against the Jesuits. At the same time, the autocracy of the Jesuit Archbishop Garzia had fanned the fire of discontent. About

1 *Lingerings of Light in a Dark Land*, Whitehouse, p. 158

this Archbishop, it is stated by D' Orsey that he ruled the Syrian Christians with a rod of iron and "attempted to abolish the Syriac language and to introduce Latin in the Church service" and that "he persecuted every Syrian who differed in the minutest trifle from the rituals of Rome.[1]" The clouds were thus thickening and the storm was fast approaching.

Revolt of the "Coonen Cross" (1653)

The crisis came in 1653. The Jacobite Patriarch of Antioch, in response to the request made to him by Archdeacon Thomas, sent a bishop named Ahatalla (which meant God-given), who arrived at Surat, in 1652 in the garb of a simple monk. After his arrival in India he took the name Ignatius and the title of the "Patriarch of all India and of the Chinas". Treated with suspicion by the Jesuits at Goa, he was making his way to Malabar when he was detained at Mylapore by the Portuguese authorities. From there he addressed a letter to Archdeacon Thomas informing him of the particulars relating to him and of his detention by the Portuguese and asking for immediate succour.

The Syrians were thrilled by the news. They approached Archbishop Garzia, who turned down their proposals, on the ground that even if Ahatalla had been appointed by the Pope he could not take possession of the See, unless the Portuguese king had sent up the credentials relating to the appointment. On receiving the news that Ahatalla was brought by sea to Cochin *en route* to Goa, the Syrians gathered in large numbers and marched to the gates of the Portuguese town demanding the surrender of Ahatalla to them or at least facility to see and speak to him. This was refused. Meanwhile, rumour spread that the "Patriarch" was drowned. It is not clear as to what actually happened to him. According to one version the Portuguese authorities in Cochin drowned him secretly either out at sea or in the deep part of the backwater at the time when the Syrians were assembled in the neighbourhood. According to another version, Ahatalla, was sent to Goa by ship from Cochin, consigned there to a dungeon in the Inquisition and at length burnt as a heretic in 1654 A.D. Hough who believes in the latter version has expressed the view that the story of Ahatalla being drowned by Portuguese authorities was deliberately

1 *Portuguese Discoveries, Dependencies and Missions in Asia and Africa*, D' Orsey, p. 372

concocted by the Jesuits to shift odium of this crime from their shoulders to those of the Portuguese.[1]

The Archdeacon made his followers understand that Ahatalla had given him a letter stating that in case he (Ahatalla) was prevented from coming to them, the Malabar Syrians might choose Archdeacon Thomas in his place. Fully convinced that Ahatalla was sent to them by the Pope as their Bishop, and regarding the letter of Ahatalla as an order from the Pope, the Syrians decided not to obey the Archbishop any more or to have anything to do with the Jesuits (called by them "Fathers of St. Paul" because of the Jesuit college of that name near Cranganore). To affirm their decision by a solemn oath the Syrians who had gathered in thousands at Mattancherri assembled in front of an ancient Cross in the vicinity, and since there were too many to lay their hands on it for the purpose of taking the oath, they tied a lengthy rope on it, and all holding on to it swore that they would never more obey their Archbishop or be under the Jesuits. This is the famous "Oath of the Coonen Cross" (*Coonen Kurisu*). The Syrians then proceeded to a place called Alangad, some 20 miles to the north-east of Cochin, and there on May 22, 1653 consecrated Archdeacon Thomas as Metrapolitan Mar Thomas I. Since no bishop was available to perform the ceremony twelve Syrian priests laid their hands on the head of the Archdeacon and performed the consecration. A letter claimed to have been received from Ahatalla authorising the Syro-Malabar communities to choose a Bishop for themselves was also laid on his head. This event marks a turning point in the history of the Syrian Church of Kerala in so far as it led to the separation of the old undivided church into two. Those who decided to continue in the Church of Rome were henceforward known as Romo-Syrians while those who denounced the Roman Catholic Church came to be known as Jacobite Syrians. In common parlance the former came to be known as *Pazhayakuru* and the latter as *Puthankuru*. The revolt of the Coonen Cross spread rapidly and most of the Syrians joined the movement. It is said that out of about two hundred thousand Syrian Christians, only about four hundred ultimately remained under the rule of Archbishop Garzia. The Archdeacon was widely recognised by the Syrians as their only Archbishop and they conducted worship under him according to the Syrian rite.

1 Vide *History of Christianity*, Vol. II, p. 30?. See also *Historical Notices of Cochin* Whitehouse, pp. 12-13

Carmelite Mission of Reconciliation

The news of the defection of the Syrians from the authority of Archbishop Garzia reached Pope Alexander VII in 1655. The four hundred Syrians, too, who remained loyal had requested the priests of the Carmelite order, who were already in Malabar, to keep the Holy See informed of their affairs. The Propaganda (the body concerned with the churches abroad) immediately turned its attention to the serious situation in Malabar. As the Carmelites in India had already established good relations with the St. Thomas Christians, it was decided to send there an Apostolic Commissary. The Italian Carmelite, Fr. Hyacinth, was selected for the purpose with two other Italian Carmelites, Fr. Joseph of St. Mary, otherwise known as Sebastiani, and one Fr. Mathew of St. Joseph. Proceeding by different routes, Sebastiani reached India first, accompanied by two German Carmelites, in 1657.

On his arrival in Malabar Joseph Sebastiani and his companions immediately set to work to fulfil their mission of reconciling the Syrians to the Latin Archbishop and bringing them back to the Catholic fold. Archbishop Garzia and the Portuguese also welcomed the order of the Pope and gave their support to Sebastiani and his companions. While Archdeacon Thomas remained stubborn, some of his followers were willing to give him up and submit to Rome, though even they would not agree to be ruled by Archbishop Garzia. Chief among them was Parambil Chandy, *alias* Alexander de Campo, a relative of the Archdeacon. In spite of the many divisive forces among the Christians Sebastiani won over to his side some priests and communities. In one respect, however, he failed completely, viz., nobody was willing under any condition to submit to the jurisdiction of the Archbishop. Since Fr. Hyacinth, the official head of the delegation had arrived by this time, Joseph Sebastiani could leave for Rome to report on the situation. The Pope decided to send him back to Malabar to continue the work of reconciliation he had undertaken. On December 15, 1659, he was consecrated the titular Bishop of Heirapolis and appointed "Vicar Apostolic and Administrator of the Archbishopric of Cranganore." He was vested with wide powers—even to consecrate, if he deemed it opportune, an Indian bishop, or divide the territory of Cranganore and Ankamali so as to form two districts, a southern and a northern one. He was also given the power to choose a successor

and to consecrate him. But the appointment was kept secr till his arrival in India, lest it should provoke the oppositio of Portugal, as it was not in accordance with th "Padroado" arrangement. Since the Archdioce of Cranganore still continued its existence, the Vicaria Apostolic of which Sebastiani was the head came to be calle the Vicariate Apostolic of Malabar, or the Malabar Vicariat which thus originated in 1659.

Bishop Sebastiani arrived in Malabar on May 14, 16 and latterly announced his appointment and took possessic of his See in spite of some opposition. Archbishop Garz had died by this time. For the next twenty months Bishc Sebastiani continued the work of persuading the Syrians quit Archdeacon Thomas and return to the Latin fol "Eighty-four churches" says Mackenzie, "returned to Rom obedience *and only twenty-two remained under the Arc deacon*".[1] This was the position of the Malabar Church the time of the Dutch capture of Cochin (1663).

Effects of Portuguese Contact

The effects of Portuguese contact with Kerala may no be briefly summarised. The Portuguese have left traces their influence in the economic , social and cultural field It is the distinction of the Portuguese that they were the fir European power to establish trade contacts direct with Indi They put an end to the historic trade connection betwe Kerala on the one hand and the countries of Arabia ar Egypt on the other. But at the same time they also secured world market for Indian goods, especially spices and musli They introduced into India a number of new produc The most important of the products so introduced was t cashew tree which is still known in Kerala as the Ferin Mango tree (*Parangi Mavu*). Tobacco was another produ which they introduced and cultivated on a large scale. T seeds of many of the tropical fruits of South America su as the custard apple, guava, the pineapple[2] and Papa were brought here for the first time by the Portugue Moreover, the scientific cultivation of pepper and ging was undertaken by the Portuguese on such an extensi scale that the trade in these spices ceased to be the monopo of a few big merchants and became the business of the peop

1 *Travancore State Manual*, Nagam Aiya, Vol. II, p. 180

2 In Malayalam the pineapple is called *Prithichakka*, i.e., the Portuguese jack fru

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The effects of Portuguese contact with Kerala may now be briefly summarised. The Portuguese have left traces of their influence in the economic , social and cultural fields. It is the distinction of the Portuguese that they were the first European power to establish trade contacts direct with India. They put an end to the historic trade connection between Kerala on the one hand and the countries of Arabia and Egypt on the other. But at the same time they also secured a world market for Indian goods, especially spices and muslin. They introduced into India a number of new products. The most important of the products so introduced was the cashew tree which is still known in Kerala as the Feringi Mango tree (*Parangi Mavu*). Tobacco was another product which they introduced and cultivated on a large scale. The seeds of many of the tropical fruits of South America such as the custard apple, guava, the pineapple[2] and Papaya were brought here for the first time by the Portuguese Moreover, the scientific cultivation of pepper and ginger was undertaken by the Portuguese on such an extensive scale that the trade in these spices ceased to be the monopoly of a few big merchants and became the business of the people

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VIEWS OF PORTUGUESE COCHIN

at large. The Portuguese also introduced welcome changes in the cultivation of coconut. This product which was till then grown for household and local uses came to be extensively cultivated for purposes of trade under Portuguese auspices. Coir became an important article of foreign trade from the days of the Portuguese. The Portuguese also introduced seed nuts of a better and bigger type of coconut from Africa. The growth of trade and commerce resulted in economic prosperity which was not confined to a few parts but was widely diffused among all sections of the people. Many towns grew up during the Portuguese period. Cochin grew into a large and flourishing commercial town and was, after Goa, the finest and largest city on the Malabar coast. "The town is very populous, as well with Portuguese as Indians, both Christian (of whom there are a large number) and infidel. There is great traffic and shipping there, and vessels come and enter this river from all parts: in short, for traffic and affluence of all the necessaries of life, it is a second Goa. This great shipping has rendered the country of the Cochin King busy, rich and opulent. The king himself has become more wealthy and powerful, because he sells promptly all the produce of his country, and receives in return all that his country has need of, besides the tribute and presents that he gets daily from the Christian, Moor and Gentile merchants. The king and the inhabitants, as well Nayars and *Moucois* and other Malabars, Gentiles and Muhammadans, agree, well with the Portuguese, and live in peace. There is a vast number of Jews there that are very rich, and all the different nations live in perfect liberty as to religion, each having its own temple, except in the Portuguese town which is reserved to that nation." Cochin was a gay city in those days, and it was a common saying that "China was a good place to make money in and Cochin to spend it at."[1]

The ornate architecture and the bungalow type of buildings which the Portuguese introduced on the Malabar coast are equally worthy of notice. Portuguese Cochin had a number of buildings built after the Portuguese fashion. All the Government buildings and most of the private

1 *The Coasts of Malabar and Coromandal* by Philip Baldaeus (p. 632) and *Voyage to the East Indies* by Francois Pyrard De Laval, Vol, I., (pp.434-5) quoted in the *Cochin State Manual* (pp. 84-85). There is a glowing description of the town in the contemporary Sanskrit work called *Mato-Maharaja-prasasti* by the great Sanskrit poet Melpathur Narayana Bhattathiri, who lived in the second half of the sixteenth and first half of the seventeenth centuries.

residences here were well-built, handsome structures, the best houses having their "court-yards and gardens belonging to them enclosed with very thin yet strong and high walls, so that the neighbours cannot overlook one another".[1] In 1600 an excellent stone wall was constructed all around the town with bastions at regular intervals. "The Malabar Cochin (Mattancherri) is seated somewhat lower, and built after the Indian fashion with broad streets; it is very populous, and the royal palace is built with bricks and mortar after the European way, with apartments very spacious and lofty; near which stands the pagoda, with a very large cistern adjoining it."[2]

Apart from their contributions in the economic field the Portuguese also made some contributions to the religious and social life of Kerala. It has already been noted that Portuguese authorities, civil and ecclesiastical, succeeded to a large extent in removing Hindu influence on the St. Thomas Christians of Kerala and bringing large sections of them into the Roman Catholic Church. Their missionary efforts made India the country with the second largest Catholic population in the east, the first being Philippines and this position she retains to this day. The ecclesiastical architecture of Kerala also shows unmistakable traces of Portuguese influence. There are a number of Churches in Kerala even today which bear witness to the religious fervour and enthusiasm of the Portuguese.

The Portuguese contributions in the field of learning also deserve notice. The introduction of printing and the establishment of Seminaries and Colleges at such places as Vaipicotta and Cochin for the training of Indian priests helped the cause of enlightenment. "The Jesuits of Cochin, so early as 1577, made some attempts at Book making. This remarkable Society has ever been, in its way, the friend of Education when under purely Romish influence; and thus, it was the first of the religious orders in attempting to print in the vernacular languages of South India. The honour of having been the first to cut out the Malayalam letters for a printed book belongs to Joannes Gonsalvez, a Spanish lay Jesuit, and the first book that issued from a press in Cochin was printed with his type, and was entitled *The Rudiments of the Catholi*

1 *Cochin State Manual*, p. 84

2 *Ibid.* p. 84

Faith.[1] The Seminaries and Colleges set up by the Portuguese helped the people to take to the study of the Latin and Portuguese languages. The Portuguese period may also be associated with the beginnings of Oriental studies and research by European scholars. Garcia Da Orta's work on the medicinal plants of India is a pioneering study on the subject. St. Francis Xavier translated the Catechism into Malayalam. The accounts of Kerala left by Duarte Barbosa, Gaspar Correa and others may also be counted among the beneficial results that accrued from the Portuguese contact.

Causes of Portuguese Failure

Before proceeding to the history of the Dutch period, it would be appropriate to analyse the causes of the failure of the Portuguese to establish a more enduring dominion in India. The decline of the Portuguese power in Kerala which began immediately after the time of Albuquerque was due to a variety of causes, both internal and external. Some of the policies pursued by the Portuguese were themselves detrimental to their long-term interests. Albuquerque's scheme of establishing mixed colonies by encouraging inter-marriages between Portuguese settlers and native women was a tragic blunder.[2] It only helped to produce a race of Portuguese half-breeds who possessed the defects of both races but not the virtues of either. The system of Portuguese Government in India was itself intrinsically weak and vicious. The Portuguese officers did not get fair wages. Many of them were corrupt, greedy and unscrupulous, and supplemented their income by having recourse to private trade. Huge fortunes were amassed by these officers while the State derived little or no benefit from their transactions. Again nepotism was rampant among the Portuguese authorities. The officers brought out to India their sons and nephews and appointed them in positions of responsibility. Consequently there was neither honesty nor discipline in the public services and the army. Moral values counted for little. "Robbery", wrote St. Francis Xavier, "is so public and common that it hurts no one's character and is hardly counted as a fault".[3] The distance from which the

1 *Historical Notices of Cochin*, Whitehouse, pp. 9-10
2 See *Kozhikode District Gazetteer*, p. 108
3 Quoted in *A History of Kerala*, K. M. Panikkar, p. 175

Portuguese King exercised controlling authority helped the Portuguese officers in India to defy authority with impunity and lead a life of self-indulgence and profligacy. At the same time the Portuguese Government had been following the suicidal policy of sending to India all kinds of undesirable elements who depended upon its munificence. "It (India) became the asylum for those who had claims that could not be satisfied or who had rendered services that could not be acknowledged, or had received promises that could not be fulfilled. Young women were shipped off from Lisbon with the dowry of an appointment in India for the men who would marry them. One favoured damsel carried in her trunk the Governorship of Cranganore".[1] The sale of Indian offices which began as an illicit trade was even accepted as the policy of the Government and became a regular source of public revenue. The Portuguese king ordered that all Indian appointments should be put up for auction and sold to the highest bidder.

Apart from these defects in administration there were other factors which contributed to the Portuguese downfall. After Albuquerque's death the Portuguese in India followed a policy of forcible conversions and religious persecution which cost them the goodwill and support of the people. This made Portuguese administration odious in the eyes of the people. Further, the Hindu rulers of Vijayanagar who were the friends of the Portuguese declined in power following their defeat in the battle of Talikotta (1565) and the Portuguese too suffered in consequence. The Portuguese empire declined also because Portugal was only a small country with a small population and poor resources and could not therefore supply her possessions in the east with forces strong enough to defend them. Besides, they had also to look after Brazil in South America. Further, the Portuguese empire depended on sea power for its continued existence. In the 17th century Portugal had to face the hostility of England and Holland and she lost her command of the seas. This also made Portuguese collapse in the East inevitable. Above all, the geographical factor also militated against Portuguese success in establishing an enduring dominion in India. The narrowness of the Malabar coast and the barrier of the Western Ghats cut off the West Coast from

1 Hunter quoted in the *Cochin State Manual*. p. 86

all contact with the interior. The Portuguese had therefore no scope for further expansion in India. Perhaps, if they had landed on the eastern coast like the English, it might have been easy for them to get into the interior, build up a more permanent dominion and alter the very course of Indian history.

Events leading to the Dutch Conquest of Cochin

The Dutch conquest of Cochin on January 7, 1663 has already been alluded to in an earlier section of this Chapter. The story of the events leading to this conquest may now be told in greater detail.[1] The Dutch East India Company began to despatch ships to India from 1595 onwards and after many encounters with the Portuguese and their allies they succeeded in establishing their power in several places in India, in Ceylon and in the Eastern Archpilago within the next quarter of a century. Having captured all the Portuguese possessions in Ceylon in 1656-58 the Dutch under Admiral Van Goens took Quilon in December 1658, though the place was later recaptured by the Portuguese.[2] The Dutch were now gradually replacing the Portuguese as the political power in Kerala. Vira Kerala Varma, the senior member of the *Mootha Thavazhi* branch of the Cochin royal family, whose house had been deprived of power by Vira Kerala Varma of the Palluruthi line in 1646, had in the meantime paid a visit to Colombo and personally appealed to the Dutch for help against the ruling family of Cochin. The *Mootha Thavazhi* prince had the Zamorin and the chiefs of Vadakkumkur, Thekkumkur and Edappilli as his allies, while the ruling Raja had the support of the princes of Chempakasseri (Purakkad), Parur and Valluvanad as well as that of the Portuguese. In response to the appeal from the *Mootha Thavazhi* prince the Dutch decided to interfere in

1 A Malayalam historical poem entitled *Patappattu* (War Song) which was composed in the 17th century deals with the Dutch conquest of the Portuguese possessions in Malabar. The poem was published by the Travancore Government in 1924 in the *Sri Mulam Grandhavari* Series with a learned introduction by poet Ullur S. Parameswara Iyer. It gives a vivid description of the main incidents leading to the Dutch conquest of Cochin and other Portuguese possessions and confirms the versions given by European writers. The authorship of the poem is a matter of controversy. In the body of the poem a Syrian Christian scribe claims to be its author but as it is dedicated to Goddess Saraswathi, Ullur S. Parameswara Iyer thinks that the author could have been only a Hindu. Dr. T. I. Poonen believes that the dedication to Saraswathi was only a literary convention of the day which was followed even by Syrian Christian writers and hence the author of the *Patappattu* could after all have been a Syrian Christian himself. (*A Survey of the Rise of the Dutch Power in Malabar*, Dr. T. I. Poonen, p. 22)

2 See *Quilon District Gazetteer*, p. 119

the Cochin war of succession. When the Dutch fleet under the command of Vander Meyden appeared off Vaipin early in 1661 in pursuance of the scheme to dislodge the Cochin ruler and conquer the Portuguese possessions on the Malabar coast, they were promptly welcomed by the Zamorin, the *Mootha Thavazhi* princes and the Raja of Cranganore. On February 15, Van Der Meyden landed his troops at Njarakkal and after a skirmish with a Nair force in which he lost a few men, he advanced the next day along the coast to the fortress of Pallippuram known as the *Azhikotta* outpost. The small Portuguese garrison stationed here fled by the backwater. The Dutch took possession of the fort, but they handed over Pallippuram to the Zamorin and returned to Colombo. When the fleet was on its way back, the Paliath Achan, the leading noble man of Cochin and the minister of the Vettat princes, boarded Van Goen's ship and sought Dutch protection. The Achan who hated the Portuguese intensely was in secret league with the *Mootha Thavazhi* princes. The Admiral responded to the Achan's appeal and concluded a treaty on board the ship on March 12, 1661 by which the Achan agreed to place himself under Dutch protection and undertook to serve them faithfully.[1]

Battle of Mattancherri (1662)

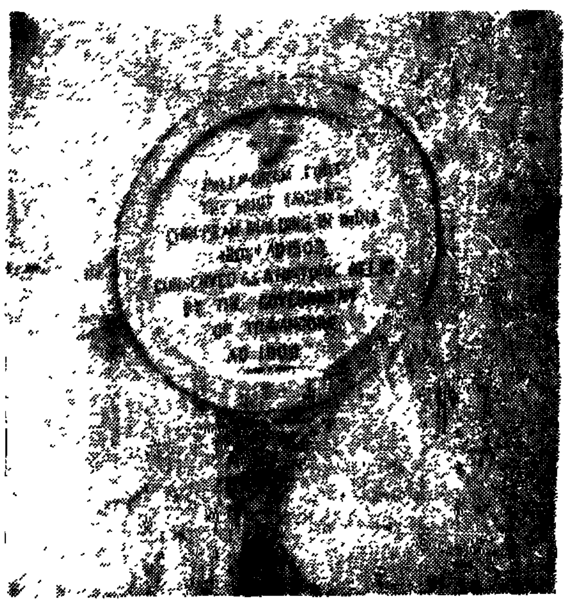
Towards the end of the year 1661 the Batavia Council decided to renew the campaign on the Malabar coast. A fleet was despatched to Cochin under the command of Admiral Van Goens. On the way it recaptured Quilon on the 7th December and then proceeded to Cochin. However, before laying siege to Cochin the Dutch proceeded towards Pallippuram and assisted by the Zamorin and the Raja of Cranganore laid siege to the Cranganore fort on the 3rd January 1662. After a fierce engagement Cranganore surrendered to the Dutch who after plundering the town and destroying the buildings except a stone tower on the river side made over the place to the Cranganore Raja.[2]

A week after the fall of Cranganore the Dutch fleet approached Cochin and landed the troops at Vaipin. The Dutch seized the church facing the bar and a large house belonging to the Bishop of Cochin. They then built a fort

1 See *History of Kerala*, Vol. I, K. P. Padmanabha Menon, p. 514
2 For details of the events leading to the Dutch conquest of Cranganore see *Trichur District Gazetteer*, pp. 150-52



AZHIKOTTA OR PALLIPPURAM FORT (ABOVE) AND THE TABLET PUT UP BY THE ARCHAEOLOGY DEPARTMENT (BELOW)



called New Orange, and from there bombarded Cochin. At this time the Zamorin appeared with his forces at Elangunnapuzha. The *Mootha Thavazhi* prince whom the Dutch favoured now came on board and the army landed some miles south of Cochin. Van Goens marched northward along the shore and after resting for the night in the great church of St. Jago he proceeded against Mattancherri the next day. Here the Nair forces of the ruling princes had mustered strong and they resisted the Dutch advance furiously. A battle was fought in front of the Mattancherri Palace in which the Nairs led by the Raja and his two brothers fought valiantly. A large number of Dutch soldiers were killed, but the Cochin forces were forced to withdraw with heavy loss in men and material. Among those killed were the Raja and the two princes and most of their ministers and chief followers. Rani Gangadhara Lakshmi who was watching the fight from the palace was taken prisoner by Henrick Van Rheede, then an ensign in the Dutch army.[1] The *Mootha Thavazhi* prince is reported to have prostrated himself before her and craved her pardon for taking up arms against her, while Van Goens compelled her to recognise her deposed nephew as the king of Cochin.[2] Goda Varma, the only surviving Vettat prince, was at Palluruthi when Mattancherri was occupied by his enemies. He soon succeeded in gathering a small force of Nairs and crossed over to Arur to watch the course of events.

Siege of Cochin

In the meantime the Dutch converged on Portuguese Cochin from three directions. A detachment of the Dutch forces under the direct command of Admiral Van Goens attacked the land side near the Church of St. Thomas. Another detachment led by Ysbrand Gotsken launched an assault on the sea side of the town while a third under Commander Roodhass attacked a position near the backwater. Fierce fighting broke out in the course of which the Portuguese garrison put up a stiff resistance. The Dutch Captain Peter Wash was killed in the fight and the Dutch forces were for the time being forced to retreat with great loss. Admiral Van Goens himself received several shots on his hand while

1 Van Rheede later became the Dutch Governor of Cochin and earned a name as the Compiler of the *Hortus Malabaricus*.

2 Rani Gangadhara Lakshmi was kept in safe custody by the Dutch for some time thereafter. She was nearly 100 years old when she fell seriously ill in 1664 and died in 1665.

Commander Roodhass barely escaped from being thrown into a deep well. The siege of Cochin lasted for nearly two months.

In the meantime the Raja of Purakkad, a staunch ally of the Portuguese, arrived in Ernakulam with a detachment of his forces and threw in supplies to the beleaguered garrison at Cochin and harassed the enemy in the rear. A relief force of 200 Portuguese also landed at Purakkad from Goa towards the end of February and marched to Arur from where they got into the fort by way of the backwater. The rainy season was now fast approaching. Prospects of Dutch success seemed bleak while the Portuguese position had improved. The Dutch forces had also become reduced to about 1,400 men and they were badly in want of several war materials. Under these circumstances the Dutch decided to raise the siege and return with a larger force at the end of the year. On the 2nd of March they left the scene without much ado and unnoticed by their enemies[1]. The Portuguese and the followers of the Vettat prince were heartened by this unexpected turn of events. The former took immediate revenge on the Jews and the Konkanis who had rendered assistance to the Dutch. Their houses and temples were plundered and markets looted. Goda Varma, the Vettat prince, now came to Cochin from Arur accompanied by 700 Nairs and he was received by the Portuguese and his adherents with great rejoicings. On the other hand, the *Mootha Thavazhi* prince and the Paliath Achan escaped from Mattancherri and fled for their lives. Accompanied by a Chazhur prince they again proceeded to Colombo to plead with the Dutch to return and resume the siege of Cochin at an early date. A Dutch fleet under Jacob Hustaart had by this time already set sale from Batavia to resume the siege of Cochin and it had been joined by Van Goens. The *Mootha Thavazhi* prince and his party also accompanied them from Colombo. On the way the *Mootha Thavazhi* prince died on board the ship at Antikadavu near Cochin, bequeathing his unstable *Musnad* to his brother Vira Kerala Varma.

1 The Dutch by their tactics fooled the Portuguese and escaped their vigilance. "They ....managed to quit their entrenchments by night, so quietly, that the besieged did not know that they had gone till noon on the following day; for a certain Constable Boerdorp, who was the last to embark, had run about all night bawling out, "Stand", "halt", "who is there"? and similar expressions; whilst a Jewish ally still sounded the hours, after every Dutchman had got safely off; by these simple stratagems were the Portuguese deceived, and all suspicion was hushed". (*Historical Notices of Cochin*, White house, p. 16.)

On October 26, 1662 the Dutch again appeared before Cochin with a greatly augmented force. They landed at Pallippuram and marched to the southern end of the island of Vaipin and took positions there. The bulk of the army re-embarked and landed near the Church of St. Andrew in Cochin. The Dutch General offered favourable terms of surrender to the Portuguese, but the latter refused to entertain them. The Dutch, thereupon, resolved to take Cochin fort by storm. They soon made themselves masters of Mattancherri and the adjacent places from where Goda Varma had by now withdrawn with his men to Ernakulam. Meanwhile, the Raja of Purakkad (Chempakasseri) joined Goda Varma at Ernakulam and as on the previous occasion, threw supplies into the town and harassed the enemy in the rear. The Dutch thereupon crossed over to Ernakulam in armed boats and attacked the town. The Cochin forces led by Portuguese officers fought gallantly and drove the Dutch back with great loss. But Dutch reinforcements soon arrived and they also got the help of the *Anchikaimals* who held sway over Ernakulam and suburbs[1]. Ernakulam was soon occupied by the Dutch after a bloody encounter with the Nairs.

The Portuguese still held out in Cochin, but after the fall of Ernakulam they fell short of provisions which were till then being supplied to them from that town, and therefore they could not continue their resistance for long. The Dutch General stormed the Cochin fort assisted by the troops of

1 It may be mentioned that one of the important causes of Dutch success in Cochin was the loyal co-operation they received from the *Anchikaimals* or five lords of whom the most powerful was the Cheranellur Kartha. Lucas Van Waardan, Councillor and Secretary of the exepedition to Malabar, makes the following statement on the 4th January 1663. "There appeared before me the person who has signed below Anjikaimali, who has made protestation and confesses to be and remain now and for all time a faithful upright friend and servant of the Dutch East India Company, forsaking all friendship and correspondence with the Portuguese, Goda Varma, Purakkad and their further adherents for which purpose he, the above-mentioned lord Anjikaimal, being authorised thereto, appeared before me, and in his honour's name has done homage in all deference, and accordingly been accepted by me as friend and ally of the Hon'ble Company on the authority of the Lord Admiral and Commander-in-Chief, Rijckal of Van Goens, promising in his name to keep and maintain in truth the said Karmal, his quality, dignity, and honour. Executed at Anjikaimal this 4th January in the year 1663 and exchanged to both sides. Signed, Lucas Van Waarden, Councillor and Secretary of the expedition. On the side, three lines of Malayalam characters against which stood written: this the signature of the Paliyatter; as witness also, lower, a Malayalam signature wherewith stood written, this the signature of Pullel Achan regiadoor of Anjkaimal. Under the Signature of the Hon'ble Van Waarden stands a Malayalam signature near which stands written the signature in hand of Palougett, regiadoor of Ajikaimal, and in the midst of all the signatures stood the Company's seal printed in red lac." Quoted from the *A Survey of the Rise of the Dutch Power in Malabar*, T. I. Poonen, pp. 106-107

Vira Kerala Varma and the Paliath Achan. The attack lasted for 8 days and nights. On the 9th day, i.e., on 6th January 1663 they launched assaults on the fort simultaneously from three sides.[1] On one of the sides, the bulwark of Calvatty, Captain Peirre Du Pon succeeded in gaining a position on the wall and on the following day the Portuguese had capitulated. By the terms of capitulation, all the Portuguese possessions in Cochin passed over to the Dutch, all true born unmarried Portuguese conveyed to Europe, all married Portuguese and Mestics (assimilated half-castes) were sent to Goa, and all free Topasses (semi-assimilated half castes and Indians) and Canarins (Konkanis) were left at the disposal of the Dutch commander, while the clergy were allowed to keep with them their images and church ornaments excepting those of gold and silver. Though the Portuguese had previously removed most of their valuables to Goa, the Dutch still got much valuable booty from within the city. "Reports of the riches brought from Cochin to Vingurla by the Dutch reached even the ears of Sivaji. So great was the impression made by the Dutch capture of Cochin".[2]

Dutch Cochin

Having established themselves as the masters of Cochin the Dutch made it their headquarters in Kerala. The Dutch Government of Cochin was constituted with the Governor or Commandant at its head assisted by a council of eight officers. The Dutch made far-reaching changes in the town. As the Cochin fort was considered to be too unwieldy and large for purposes of effective defence, it was reduced to about one-third of its original size. General Hustaart advised the construction of a small Pentagon Fort, only one-third the size of that which they finally decided on. The fort when completed by the Dutch was strengthened by seven strong bastions which were called after the names of the seven United Provinces, e.g., Holland, Zealand, Utrecht, Friesland, etc. Accommodation was provided for about 4,000 soldiers within its walls in time of peace and for a maximum of 15,000 in time of war. The Dutch also demolished several houses in order to draw the town into a more narrow compass. Most of the streets were allowed to stand as they had

1 For a detailed account of the siege and capitulation of Cochin see "*A Survey of the Rise of the Dutch Power in Malabar,*" T.I. Poonen, pp. 91-113
2 *Ibid.* p. 105

been arranged by the Portuguese though they received new Dutch names. The only building of importance which the Dutch erected in Cochin seems to have been the Commandants' house, which was advantageously situated at the north-west angle of the fort, its walls being washed by the river where it entered the sea.

The Dutch were Calvinist Protestants and inveterate foes of the Catholic Church. Hence they destroyed the churches and monasteries and the Seminaries and Colleges of the Jesuits. The magnificent Jesuit library in Cochin was pulled down. Tavernier says that he saw their soldiers and seamen tear several of these beautiful volumes to light their tobacco. The Church of the Franciscans was retained for the service of the Dutch Reformed Religion while the Cathedral of Santa Cruz was converted into a store-house for pepper, rice and other products of the country and its tower was used for the flagstaff of the port.

Another important act of the Dutch following their capture of Cochin was to banish all European priests of the Latin rite from the place. The destruction of churches and convents together with the banishment of the European priests struck terror into the hearts of the inhabitants of Cochin most of whom were Roman Catholics and many of them therefore left the town in the wake of Dutch occupation. The exodus of people from the town was so large that the Dutch feared that Cochin would ere long become a town of empty houses and deserted streets. The Dutch, therefore, reversed their policy to some extent and tried to bring back the people to the town by more conciliatory measures. The Franciscan church was restored to them for their use. But, after some time, it was again resumed for the Dutch Reformed worship while the priests of the Latin rite were persuaded to establish their headquarters in the town of Vaipin.

Vira Kerala Varma (1663-1687)

After the conquest of Cochin the Dutch installed Vira Kerala Varma, the Chazhur adoptee, into the *Mootha-Thavazhi*, as the ruler of Cochin.[1] General Hustaart presented to him a crown which bore the arms of the Dutch East India Company. On 20th March 1663 was concluded the first

1 In the Batavian Diaries and Van Rheede's *Memoirs* this ruler is referred to simply as *Mootadavila*.

formal treaty between the Raja of Cochin and the Dutch East India Company.[1] According to this treaty the Dutch were confirmed in the possession of all the territories previously held by the Portuguese. The Cochin Raja having accepted the protection of the Dutch and placed his State under them, the Dutch undertook to protect Cochin State from foreign aggression and to erect fortresses for such protection, wherever necessary. The Raja also undertook to deliver to the Dutch all the pepper and cinnamon produced in the country and to allow them the monopoly of the import trade in opium, but in return the Company was to pay to the king of Cochin all the customary tolls and duties. Further, all the Christians dwelling in Cochin town and along the coast were placed under the protection and jurisdiction of the Dutch Company and it was also agreed to by the Cochin ruler that no priest of the Romanist persuasion would be permitted in the land of Cochin except with the prior consent of the Company and that the Jesuits and all European priests would remain expelled for all time. The treaty was a great triumph for the Dutch. It laid the solid foundations of their political and commercial power in Kerala. Not only did the Cochin Raja eventually become a puppet in the hands of the Dutch Company but the Dutch also secured the monopolistic control of the pepper trade of Malabar to the exclusion of all rival commercial agencies, whether European or Asian. Within a few years after this treaty even the expenses of the Raja began to be controlled by the Dutch as is testified to by an *ola* given by the king to the Dutch Commander on May 18, 1666.[2]

Treaties with local Rajas

The Dutch triumph in Cochin was the signal for several local chieftains and Rajas to proclaim their allegiance to the ruler of Cochin and accept the protection of the new European power. The rulers of Purakkad, Vadakkumkur, Parur and Alangad were the foremost among these. According to a treaty concluded between the Dutch Company, the King of Cochin and the Raja of Purakkad on March 14, 1663

1 See *A Survey of the Rise of the Dutch Power in Malabar*, by T. J. Poonen, pp. 115-188

2 The *ola* reads as follows: "I promise that when, besides my daily expenses, I need any sum of money I shall having first considered the matter with my council send the . . . . . . Regiadoor, besides Wittula Naick to the Lord Commander to understand his opinion of the matter, and shall entirely regulate my conduct according to his pleasure, and if it comes to pass that the two above mentioned persons spend without the knowledge of the Commander any money from the Capital in their custody, it shall not be considered valid expenditure by me, but shall be made chargeable to their account." (*A Survey of the Rise of the Dutch Power in Malabar*, T. I. Poonen, p. 126).

Purukkad declared itself to be the enemy of all who might in any way injure the kingdom of Cochin and also promised to show to the Dutch Company the same loyalty which it had always shown to the Portuguese[1]. The king of Vadakkumkur also entered into a similar agreement whereby he undertook to be a faithful ally of the Dutch Company and the Raja of Cochin and to provide trade facilities to the Dutch within his kingdom[2]. By a friendly treaty concluded with the Dutch on 1st March 1663 the Raja of Parur also accepted Dutch protection[3]. Alangad (Mangatty) also offered its allegiance to the Dutch Company, though there was no formal written agreement to this effect. It may also be noted in this connection that even before the conquest of Cochin the Raja of Edappilli (Repolim) had given an undertaking to the Dutch that he would be on friendly terms with them[4]. Thus all the local Rajas and chieftains entered into treaties of alliance and friendship with the Dutch Company and the Cochin ruler.

Dutch Treaties with Cochin

It was only with the arrival of Henrick Van Rheede as Commander of Cochin in 1673 that the Dutch policy towards the local Rajas took definite shape. Van Rheede was interested not only in trade but also in securing effective political power. According to a formal treaty entered into on February 23, 1674 between the Dutch Company on the one hand and Erorma (Iravi Varma), the second prince of Cochin, Godorma (Goda Varma), the fourth prince of Cochin and the Palayatteer (Paliath Achan) on the other hand it was agreed that no one would thereafter be permitted to be adopted as heir to the Cochin kingdom except from the five lawful *thavazhis* or families of which only two were then in existence, viz., the *Mootha Thavazhi* and the *Chazhur*. The signatories also promised help and protection against all enemies and to remain faithful allies for ever. It was also stipulated that the *fanams* and other coins made by the Raja's mint should be made under the supervision of the Dutch Company. Further, no Muslims whom the Company considered injurious to their interest were to be permitted to live in the Cochin kingdom and the European priests who had not left the territories were to be expelled forthwith.

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1 *A Survey of the Rise of the Dutch Power in Malabar*, T. I. Poonen, p. 140
2 *Ibid*, pp. 145-46
3 *Ibid*, pp. 146-47
4 *Ibid*, pp. 148-49

Another treaty concluded on September 2, 1674 brought the Cochin kingdom still further under the control of the Dutch Company. It was stipulated that the Cochin Raja should have the accounts of his expenses written by clerks appointed for the purpose. The Raja was to receive for his maintenance 3,000 *fanams* the second prince 1,500 *fanams*, the third 750 and the fourth 450. To make their political domination over Cochin complete the Dutch also negotiated a treaty with the principal nobles of Cochin on 3rd December 1674. The 3,000 Nairs of Courournadu (Udayamperur) 7,000 of Karapuram 300 of Bardella, 300 of Kaddamturuty, Maddatty Kaymel, 3,000 of Baypin and the Paliyatteer promised to Van Rheede as follows:

> "We bind ourselves for the welfare of the Kingdom of Cochin and the prosperity of each of us in general and of the inhabitants in particular to undergo good and evil together; we also bind ourselves that when the Hon'ble company siezes any enemies, we with the Company shall undergo good and evil together, for our strengthening and encouragement; in resisting those enemies as also those who might come against that kingdom....the Hon'ble Company promises to protect us and to support us in the manner above described. And if anybody in any way departs from what we with these have pledged ourselves, the others were to unite and put them to account; the Hon'ble Company shall punish them and readmit them".[1]

The settlement of 1674 evoked considerable resentment among the princes and they rose in revolt. The nobles who had all along resented Dutch intervention also sided with the princes. Civil war broke out and the Raja had to leave the palace and to retire to the interior. On receipt of information regarding the developments in the Cochin Kingdom the Batavia Government sent Marten Huysman as Commander to settle the dispute, but even before his arrival the Dutch Commander Jacob Lobs had entered into an agreement with the Raja on the 21st May 1678.[2] According to the terms of this agreement the king of Cochin was to exercise his authority over the whole kingdom without anyone offering any obstruction. The princes of the royal family were not to interfere in the least in the affairs of the kingdom or the king. Anyone who made any attempt against the king or his commands was to be rigorously punished. In order to prevent all plots against the king the princes were not to speak to the Commander in Cochin without the king's previous knowledge and consent. The Paliath Achan was to look after all

1 Quoted from *A Survey of the Rise of the Dutch Power in Malabar*, T. I. Poonen, p. 130
2 *A Survey of the Rise of the Dutch Power in Malabar*, T. I. Poonen, pp. 135-38

affairs of his kingdom in the king's name. He was to speak and hold consultations with the king on all matters relating to the kingdom, but he was not to decide, much less to act, without the knowledge and consent of the king. But the treaty also provided that if the king was not satisfied with the performance of the chief of Paliyam then he could, with the knowledge and consent of the Dutch Commander, appoint another in his place. Better attention was to be paid to the king's income and the farmers of the king's dues were to be examined about their dues and if they were found to be at fault, their position was to be given to others. With this treaty which virtually handed over the Prime Ministership of the State to the nominee of the Dutch Company, Cochin passed firmly under the grip of the Dutch and the Raja was practically reduced to a cypher. As a result of the signing of this treaty the junior princes were all enraged against the king and the Nair nobles openly supported the princes. They planned to depose the Raja and destroy the Dutch influence in the State. The Dutch Commander—Martin Huysman—signed a new agreement with the Raja on May 3, 1681 and took the opportunity to tighten the Dutch grip over Cochin.

Paliath Achan

The Paliath Achan or the Lord of Paliyam was to play a very important part in the politics of Cochin State for about a century and a half and it would be appropriate in this context to trace the origin and history of his family.[1] The Achan was originally a vassal of the Raja of Villarvattam who was himself a Kshatriya feudatory of Cochin. Though the actual extent of this principality is not known, it seems to have comprised Chennamangalam and some territory to the north and south of it. When the family of Villarvattam was about to become extinct towards the close of the 16th century, the chief of the day, instead of making an adoption from a Kshatriya family to continue the line, made his son, the Paliath Achan, the heir. This bequest which seems to have been made about the year 1599 with the sanction of the king of Cochin included the title and privileges of the chief of Villarvattam but

1 The account given here is based on the *Cochin State Manual* by C. Achutha Menon, pp. 96-97

only a portion of his territory. We have no authentic record of the history of Paliyam during the Portuguese period. If the version given by the author of the *Cochin State Manual* is to be believed, the Paliath Achan seems to have been made the chief of Vaipin in 1622 by the Cochin Raja in recognition of his services to the royal family and a few years later the hereditary Prime Minister of the State, a position which had hitherto been held by the Naikarveettil Achan[1]. In the later years of the Portuguese period the Achan played a double game. While openly professing friendship for the Portuguese, he entered into a secret alliance with the Dutch. The part played by him in overthrowing the Vettat prince and the Portuguese and installing in their place the *Mootha Thavazhi* prince and the Dutch in power at Cochin (1663) has already been described.

During the early days of the Dutch power the Paliath Achan attained a position of pre-eminence in the affairs of Cochin State. He was second in rank and power only to the king, the Dutch having prohibited the *Elaya Raja* and other princes from interfering in the affairs of the State. The Paliath Achan of this period was a very able and ambitious person named Komi Achan. In April 1666 Admiral Van Goens issued a proclamation to all Malabar chiefs intimating that the Achan was under the protection of the Dutch East India Company and that the Company would punish any one interfering unlawfully or against *mamul* with his or his officers or his Nairs[2]. The house of Paliyam rose rapidly in power and importance, the Dutch Company even seeking the help of the Paliath Achan in dealing with the Zamorin and the king of Feroke. In1674 for some unknown reason the Manakot Nair and Tottasseri Talassannor were associated by the Raja for a few years with Komi Achan in the administration of Cochin State with Dutch approval[3]. It has already been mentioned that according to an agreement dated May 21, 1678 the

1 "Naicoviti" of Canter Visscher.
2 In the Dutch records of this period Paliath Achan is spoken of as the "Commander-in-Chief and Prime Minister for life of the kingdom of Cochin", "the free Raja of Chennotta (Chennamangalam)" and the "free Lord of the Island of Vaipin".
3 Manakot was a branch of the Paliyam family by adoption and was the chief of Ayirunad (Mullurkara). The Talassannor was a Pisharoti by caste and was the most powerful of the Chiefs of Perattuvithi. His lands lay betwe en Mullurkara and Chelakkara. Both the Manakot Nair and Tottasseri Talassannoor were present along with the Paliyath Achan at the meeting held in the pagoda of Pazhayannoor (Matanncherri) in September 1674 in order to limit the Civil List of the Raja and other princes.

chief of Paliyam was given the power to rule Cochin State in communication with the Raja. Komi Achan died in 1684 and was succeeded by Ittinnan Achan. As the new chief was young and inexperienced, Captain Henrick Reins was appointed as Joint *Sarvadhikaryakar* with him and Vadakkumcherri Raman Achan and Paratirutti Ittinnikumaran Achan to assist them.

Continued Rivalry between Cochin and Calicut

The traditional rivalry between Cochin and Calicut continued to complicate the politics of Kerala during the Dutch period also. Vira Kerala Varma's relations with the Zamorin were the least cordial. It may be noted that the Zamorin had gone to war with the Vettat princes and the Portuguese on behalf of the *Mootha Thavazhi* princes. In the course of the war he had obtained certain territories such as Mapranam, Arattupuzha, Oorakam, Chettuvai etc., in the Trichur District and he retained them at the end of the war with the prior consent of the Cochin ruler. Vira Kerala Varma demanded the restoration of these lands by the Zamorin and on the latter's refusal solicited Dutch intervention. The Dutch who were in no mood to oblige the Cochin ruler counselled patience and a crisis was averted for the time being.[1]

Raja Vira Kerala Varma died at Trichur in 1687 and was succeeded by his brother Rama Varma (1687-93), the last scion of the *Mootha Thavazhi*. At a conference of the late and the present Rajas, the Dutch Governor, the Paliath Achan and several other chiefs held at Chennamangalam in May 1681, one of the resolutions passed was that the next adoption should be from the Chazhur family. Accordingly some princes and princesses were adopted from that family in 1689. The Nair nobles were opposed to this adoption as the Chazhur princes were puppets of the Dutch. They proposed adoption from among the princes of Vettatnad. There was also an impression that the Dutch were indifferent to the interests of Cochin and would never assist her in recovering possession of her lands from the Zamorin. For this reason too the feudatory Rajas and chiefs of Cochin thought that Vettatnad and Cochin should combine together and drive the Dutch out of Cochin and afterwards wage war against the Zamorin.

[1] See *Trichur District Gazetteer*, p. 152-53

The anti-Dutch Vettatnad faction had the support of the Rajas of Parur, and Mangad and the *Madampies* of Karapuram[1]. The Cochin Raja extended his secret sympathy and support to the chiefs, but the Paliath Achan stood firmly by the Chazhur princes and the Dutch. The confederates started war in 1691. The Vettat prince with a force of Nairs marched to Mangad and was joined on the way by the confederate chiefs and their followers. The Dutch troops supported by the Nairs of the Zamorin and the Paliath Achan and led by Henrick Van Rheede, a former Governor of Cochin, and now Commissar-General met the confederates near Alwaye and routed them. The Dutch plundered and burnt the palaces, chief houses and bazaars in Alangad and Parur and spread havoc throughout the area. They then returned to Cochin with an enormous booty. Soon after this event the Dutch conceded Chettuvai to the Zamorin and entered into a commercial treaty with him. The Zamorin of this period was Bharani Thirunal Manavikrama (1684-1705).

The alliance between the Zamorin and the Dutch was a great disappointment to Cochin as it shattered all hopes of her getting Dutch assistance against the Zamorin. Repeated attempts on the part of Cochin to draw the Dutch into hostilities with the Zamorin ended in failure. Rama Varma died in 1693 and was succeeded by Ravi Varma (1693-97), the first of the Chazhur adoptees. In a letter written to the Dutch Governor-General at Batavia in 1696 the Raja pointed out with regret that the Company was adopting a vacillating attitude in regard to the feud between him and the Zamorin and warned that the Zamorin was only waiting for a convenient opportunity to resume aggression against them[2]. In 1697 this ruler died at Thiruvalla

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1 The Parur Raja was a Namboothiri chief who ruled over territories which corresponded approximately to the Parur Taluk in this District. Mangad was a Nair family ruling over Alangad and consisted of two branches, namely, the *Karutha* (black) *thavazhi* and the *Velutha* (white) *thavazhi*. Karapuram was the sandy tract lying between Cochin and Purakkad, corresponding roughly to the coastal area of the present Alleppey District. It was parcelled out among 72 petty chiefs or *Madampies*, of whom one was a Christian and the rest were Nairs. The Raja of Manakulam and the Karyakkars of Perattuvithi also supported the Vettatnad faction. (*See Trichur District Gazetteer*, p. 140.)

2 The letter under reference and eight others written by the Rajas of Cochin to the Dutch Governors-General at Batavia have been published in full by the erstwhile Cochin Government in the *Records in Oriental Languages, Cochin State, Book II* (1946) along with an introduction by V. K. R. Menon. These letters each of which gives a brief resume of the social and political events of the period concerned serve as a valuable source of information for the history of the Dutch period. As the letters are written in Malayalam and collections of diplomatic correspondence in the Malayalam language in the 17th & 18th centuries are rare, they make interesting and useful reading.

and was succeeded by another Rama Varma[1] (1697-1701). During this reign a treaty was concluded between Cochin and the Dutch (April 4, 1698). According to the terms of this treaty the Raja was allowed his share of the customs duties. Passports were also given to him and the Elaya Raja to send out one ship load each of pepper every year. As the relations between the Zamorin and the Cochin Raja continued to deteriorate during the reign, the Dutch made an attempt at conciliation between the two. But before the Dutch efforts could bear fruit the Zamorin declared war against Cochin and invaded the northern part of the kingdom (1701).

Rama Varma (1701-21) now ascended the throne. The war between Cochin and Calicut lasted for nine years in a desultory manner. The Dutch also fought on the side of Cochin, though they were not very sincere in the support they extended to Cochin. The war was terminated by a treaty concluded in 1710. The Dutch got possession of Chettuvai and Papinivattam while Cochin recovered a great portion of the lands which the Zamorin had seized. Several parts of the Cochin territory, however, remained in the possession of the Zamorin.[2]

The loss of Chettuvai and Papinivattam was a severe blow to the power and prestige of the Zamorin. In 1715 the Zamorin renewed military operations and re-captured both these places, but his success was only short-lived. In 1716 the Dutch made a determined effort to regain their lost possessions and the Zamorin was again compelled to give up both Chettuvai and Papinivattam. This time the Zamorin's forces suffered a series of reverses and were thrown out of large areas of Cochin territory which were previously held by him. The Zamorin became alarmed and sued for peace. A treaty was concluded in February 1718 by which he agreed, among other things, to cede to the Dutch his possessions in the Chettuvai Island and in the Cochin territory and to live in perpetual friendship

1 It may be noted in this connection that all the male members of the Cochin Royal family born after 1663 A.D. assumed only three proper names--Rama, Kerala and Ravi. This has made it extremely difficult, if not impossible, to distinguish between two or more princes of the same name and work out the chronology of the Rajas of Cochin.

2 The letter written by Raja Rama Varma to the Governor-General at Batavia in 1710 throws light on the events of the war and the treaty of 1710. See *Records in Oriental Languages* Book II, pp. 3-4

with the Raja of Cochin. The ceded tracts except those in Chettuvai Island and also Mapranam were made over to Cochin by the Dutch. Raja Rama Varma had now the satisfaction of having recovered almost all the possessions of his ancestors except Perumpadappu and some other Cochin villages in Vanneri (Palghat District) which continued to be in the possession of the Zamorin.[1]

Internal Troubles

The reign of Raja Rama Varma (1701-1721) was a period of internal troubles. The nobles were subjected to all kinds of unjust extortions and oppressions and they complained against the Raja to the Dutch Commander in Cochin and the Governor-General in Batavia. At the same time the Raja had a grievance that his chiefs were insubordinate and refractory in their conduct and as such posed a serious menace to his authority and the security of his kingdom. The Governor-General advised the Raja to treat the chiefs with greater kindness and consideration and seek their advice and co-operation in matters of State. Johannes Hertenbergh, the Governor who arrived in 1716, had come with special instructions from Batavia in regard to this matter and soon after his arrival he obtained an assurance "that all the Rajas, Princes and Nobles should lay their complaints and disputes before him (the Governor) so that he is constituted arbitrator between them; by which means he became acquainted with the grounds of their differences, and is thus enabled to hinder many illegal enterprises of the King of Cochin."[2] After this there was a perceptible improvement in the relations between the Raja and the chiefs, but the conduct of the Dutch Governor left behind it a legacy of bitterness and the Raja never again met him on friendly terms.

Raja Rama Varma died at Trichur in 1721 and was succeeded by his nephew Ravi Varma (1721-1731) "a man of little or no judgement and despised by his predecessor". Neither the officials of the Government nor his own courtiers and nobles respected his authority. The reign was characterised by armed uprisings of local chieftains and he had to spend considerable time in leading punitive expeditions against them. The disputes regarding succession in

1 See also *Trichur District Gazetteer*, pp. 154-57
2 *Cochin State Manual*, C. Achutha Menon, p. 104

Parur and Mangad also claimed his attention. The dispute in the latter kingdom assumed very serious proportions. The Mangad Chief over whom the Cochin Raja had claims for overlordship was a powerful potentate with 16,000 Nairs under him. In 1730 there were only two members in this family, viz., the Chief himself and the heir-apparent who had been adopted from the family of Murianattu Nambiar in 1728. As the line threatened to become extinct, the Chief decided on adoption of a female member from the house of the Koratty Kaimal. The heir-apparent opposed the move and espoused the cause of his sister, a lady of the Murianattu Nambiar's family. On his failure to win his case, this prince rose in revolt and he was actively aided by the Dutch. The Raja of Cochin sympathised with the cause of Koratty and gave secret help to the Mangad Chief. The issue become so complicated that it was referred for adjudication to the Dutch Commander and the Raja of Cochin. The award which was announced on July 8 provided for a compromise by recommending the adoption by the Chief of the heir apparent's sister as the first princess and of the lady from the Koratty Kaimal's house as the second princess. The prince was also to surrender his arms and ammunitions to his Chief. It was also stipulated that no future adoption to the Mangad family would be valid without the prior consent of the Dutch Company and the Raja of Cochin. The heir-apparent rejected the award and persisted in his defiance. The situation was so explosive that the Cochin Raja and the Company had to maintain the utmost vigilance.

The most remarkable event of the reign was the dismissal of the Paliath Achan from the Prime Ministership of the State. The Chief of Paliyam during this period was a haughty and self-opinionated person by name Ittinikumaran Achan. In the previous reign he had committed several atrocities the most notorious of which was the unprovoked slaughter of one Mala Pai, a rich Canarese merchant, who was on extremely friendly relations with the Dutch Company. The Dutch did not take any action against the Achan at that time as Raja Rama Varma too was hostile to them. In the present reign the nobles succeeded in alienating the Paliath Achan from the Raja and had him removed from his high office of Prime Minister with the concurrence of the Dutch Governor. Achan's

followers who resented their master's humiliation committed several acts of aggression. The Raja took drastic measures to meet the situation. All the Paliyam estates lying outside Chennamangalam were confiscated and the Paliyam family and its members were confined to Chennamangalam. Many of the adherents of the Paliath Achan were slain. The Paliyam faction continued to cause disturbance to the peace of the realm for some time to come. But meanwhile Ittinikumaran Achan died and his successor Ittinnan Achan effected a reconciliation with the Raja before the latter's death at Irinjalakuda in 1739. The new chief apologised for the misdeeds of his predecessor and paid a large fine to the Raja, and he was restored to all the possessions and dignities of his ancestors.

The next king, Rama Varma (1739-1746), was a weak ruler but he was extortionate and oppressive. The Anchi Kaimals (Five Lords) of Ernakulam were the worst victims of his oppression. In view of the friendly relations which existed between the Dutch and the Kaimals the Council of Batavia even ordered a special police to be stationed in the bazaar of Ernakulam for their protection. The new Raja came completely under the influence of the Paliath Achan and the Paliam estates spread far and wide throughout Cochin. The Dutch Government Records of Cochin (1743) say that "Paliath Achan, or free Raja, had a residence at Chenotta (Chennamangalam), close to Cranganur, and was the free-lord of the island of Vaipin, and some time previously, he had become the ruling sovereign of Manakkotta and Mullurkkara, lying above Chettuvai; also his rights extended over the old kingdom of Williar Wattata (Villarvattam), an inland, a little to the north from the town of Cochin, which he got, in ancient times, from the king of Cochin who had inherited the same from a Nayar Chief."[1]

Rise of Travancore

The most notable political development in Kerala during this period was the rise of Travancore to prominence under Marthanda Varma (1729-1758). Having curbed the power of the *Ettuveettil Pillamar* and other refractory chiefs Marthanda Varma had established himself securely on the

1 *History of Kerala*, Vol. I K. P. Padmanabha Menon, p. 518

throne of Travancore and turned his attention to the extension of his dominions. He came into clash with the Dutch very early in his reign. In view of her treaty obligations Cochin was also dragged into the war between Travancore and the Dutch. It was the developments following the annexation of Elayadathu Swarupam (Kottarakara) that brought about the first confrontation between the Dutch and Marthanda Varma. The Raja of Kottarakara who was kept in confinement at Trivandrum died in 1736 and the Princess of the Kingdom thereupon fled to Thekkumkur where she was welcomed by the Raja with great cordiality.[1] The Dutch who were waiting for an opportunity to interfere in the conflict between the native princes readily espoused the cause of the Elayadathu Princess. Van Imhoff, the Dutch Governor of Ceylon, even personally met Marthanda Varma and pleaded for the princess of Elayadathu Swarupam. In 1741 he installed the princess as ruler of the Elayadathu Swarupam in open defiance of Marthanda Varma. The Raja of Travancore soon collected his forces and attacked the Dutch and Elayadathu forces. The combined armies sustained a crushing defeat and the princess managed to escape to Cochin and placed herself under the protection of the Dutch, Elayadathu Swarupam itself being annexed to Travancore. The princess lived for some time at Karapuram on a daily pension of 25 fanams paid by the Dutch. When war was declared the Dutch Governor asked the Raja of Cochin for assistance. The Raja had to accede to the request out of respect for treaty obligations but the assistance was withdrawn at a later stage as a protest against the Dutch policy of plundering and desecrating Hindu temples in Travancore. In a series of encounters culminating in the battle of Colachel (1741) Marthanda Varma crippled the power of the Dutch in Kerala.[2] The Dutch sued for peace and began negotiations with Travancore for the signing of a treaty. The negotiations lasted for a long time so that the terms of the treaty were formulated only in 1748 and the official ratification of the same took place after a lapse of another five years (Treaty of Mavelikara, 1753). The most important clause of the treaty was that "the Company shall give up all the alliance with the other kings and chiefs of Malabar with whom His Highness would desire

1. See *Trivandrum District Gazetteer*, p. 194
2. *Ibid*, pp. 195-196

to wage war, and shall not interfere in this in any respect and give to them any shelter, nor oppose His Highness' enterprise."[1] The attempts of the Dutch to exclude the king of Cochin from the neutrality on the ground that he was their first and oldest ally in Kerala ended in failure. Nevertheless, Marthanda Varma gave an oral assurance that he would treat the king of Cochin as a friend as long as he did not give trouble to Travancore. As Marthanda Varma increased the tempo of his aggressive policy towards his neighbours and the panicky appeal of the Cochin Raja for Dutch help failed to evoke any favourable response from Commander Gollanesse, the Raja "with the greatest regret in the world" sent a strong protest to the Batavia Council against this treaty which had "sacrificed us, an old friend and ally, besides other Malabar kings, and broken all contracts. When from the very beginning our ancestors tried to bring some kings under their sway and obedience, the Honourable Company continuously interfered: by observing this rule, this kingdom got divided in so many parts and has therefore become unable to check its powerful enemies. Now that the king of Travancore has become a powerful king, he has been able to coax the Honourable Company under promise to observe everything, by means of which he bids fair to bring the other kings under his sway. But we believe that he will shortly try to subjugate the Honorable Company also, and we doubt very much that he will be of assistance to it in making good profits, and besides, it will have to put up with all kinds of affronts in one way or another."[2]

Chazhur Dispute

Marthanda Varma took advantage of Dutch neutrality and continued his career of aggressive conquests and expansion. He conquered and annexed Kayamkulam in 1746 Purakkad in 1748 and Thekkumkur in 1750 and carried his victorious arms right upto the frontiers of Cochin State. In the meantime Raja Rama Varma died at Kurikad in 1746 and was succeeded by Kerala Varma (1746-49) and then by Rama Varma (1749-1760).[3] The reign of Rama Varma (1749-60) was a critical epoch in the history

1 *Cochin State Manual*, C. Achutha Menon, p. 108
2 *Ibid*, pp. 108-109
3 The statement made in the *Trichur District Gazetteer* that Rama Varma (1739-46) was succeeded by Vira Kerala Varma (1749-60) is a discrepancy.

of Cochin. Internal dissensions in the royal family again raised their head and afforded an opportunity to Marthanda Varma to interfere in the politics of the Cochin Kingdom. It may be recalled in this connection that some time after the succession to the Cochin throne was limited to the *Elaya Thavazhi*, the eldest member of the joint royal family, if senior in age to the reigning prince, was allowed to assume the title and dignities of the Perumpadappu Mooppu. During the reign of Raja Rama Varma (1701-1721), himself an adoptee of the Chazhur branch, the then Mooppu who belonged to the same branch was prevailed upon to relinquish his rank on his own behalf and that of his successors. The Mooppu and his family were compensated by being given all the wealth which the former had accumulated. The descendants of the Mooppu, otherwise called Chazhur Thampans, respected this arrangement for about 50 years. But with the accession to the throne in 1749 of the present Raja who was younger in age to some of the Chazhur Thampans, they started an agitation demanding the revival of the title. The demand was summarily rejected by the Raja and the Thampans appealed to Marthanda Varma for help. To make matters worse, Marthanda Varma had by this time taken possession of the rich temple of Thiruvalla which, though situated in Travancore territory, was under the control of the Cochin ruler. The Dutch offered to mediate in the conflict between the two Rajas, but Marthanda Varma, who would not entertain any such offer, marched his army to Karapuram in 1752 and defeated the small Cochin force stationed there. The title of Perumpadappu Mooppu was revived and Karapuram was ceded to the Chazhur Thampans who had met all the expenses connected with the expedition. The senior Thampan was given the right to govern the tract as a feudatory of the Raja of Travancore. The issue of the Chazhur Thampans cropped up in the negotiations held between the Rajas of Travancore and Cochin when the two rulers met at the conference held at Mavelikara in August 1763 for the ratification of the Dutch treaty. When all the major questions at issue had been settled and an agreement was in sight, the parties haggled over inconsequential questions such as the one relating to the Chazhur Thampans and the conference broke up in an atmosphere of open hostility between the two rulers.

Battle of Ambalapuzha (1754)

In the meantime Vadakkumkur and Purakkad had become discontented with the Travancore yoke and their rulers sought the assistance of the Cochin Raja against Marthanda Varma. The movement that took shape in these northern tracts of Travancore State soon assumed the character of a popular revolt. The Dutch and the nobility of Cochin were also in sympathy with the cause of the rebels and they were anxious to take early steps to check the advance of Travancore. The Cochin Raja now decided to take the lead in rallying the forces of opposition to Marthanda Varma. Several thousand Nairs were accordingly mobilised by the Raja's officials in Mattancherri and Palluruthi and they were soon joined by the militia of the Paliath Achan and other chiefs and the forces of Kayamkulam, Purakkad and Vadakkumkur. The whole army was placed under the command of Palliyil Idikkela Menon, an able administrator and gallant soldier. "This was in fact the last great fight undertaken by Cochin—the last field where the Cochin flag flew. The great noble families of the State were all there, Komu Achan,—the new heir of Paliyam, a brave and handsome youth of 18, but even in that early age giving the promise of highest distinction in war and statecraft, the personification of the feudal chivalry of latter day Kerala—, the chief of Kodasseri, the Kaimal of Panamukkam, the Changaramkoda Kaimal, the president of the 30,000 of Tottasseri and the rest of the great families of Cochin, forgot their ancient rivalries and took up their position beside Palliyil Idikkela Menon in an attempt to stem the tide of Travancorean aggression in which they saw not only the ruin of their own position but the conquest of Kerala by a prince whose main sources of strength were an alien bureaucracy of Tamilian Brahmins and a mercenary army of Maravas. But against the discipline and training of the Travancore forces their patriotism counted but for little."[1]

The Cochin army landed at Purakkad and took up positions there by the end of December 1753. Another detachment of the army marched through Karapuram and joined the main contingent. They took up their position at Anandeswaram and entrenched themselves behind stockades. In the meantime the Travancore forces under

1 *A History of Kerala*, K. M. Panikkar, p. 254

prince Rama Varma, Dalava Ramayyan and Captain D'Lannoy were already on the move, the Dutch having given them advance information on the movements of the Cochin forces. A bloody engagement took place at Anandeswaram on the 3rd January 1754. Both sides suffered heavy loss, the loss of Cochin being far heavier. The Cochin army by virtue of its heterogeneous composition and defective discipline was no match for D' Lannoy's well-organised and well-trained forces. But owing to the numerical superiority of the former the Travancore forces could not win a decisive victory. Towards the evening the Cochin forces withdraw to Ambalapuzha and regrouped themselves. Meanwhile, the Travancore army which had been strengthened by the addition of a cavalry unit marched to Ambalapuzha and engaged the Cochin forces in a short but decisive battle. The route of the Cochin forces was complete and they retreated in confusion. A large number were slain and many were taken prisoners. Among the latter were Idikkela Menon, Paliath Achan, Chankarankotha Kaimal, the Fifth Kaimal of Kodasseri, the Third Kaimal of Panamukkat and Cheraman Unni of Tottasseri Thalasennor's family. All except the first and the last were later released on payment of ransom. But Idikkela Menon and Cheraman Unni were left to their fate and eventually executed.[1]

The victory of Ambalapuzha was systematically followed up. One division of the Travancore army under Ramayyan advanced to the north and another under young prince Rama Varma crossed over to Kumarakom on the eastern shore of the Vembanad lake and advanced to the north-east. Ramayyan seized all the strongholds and captured many prisoners on the way. Madathumkara where the Cochin royal family had a palace was one of the strongholds which fell. Ramayyan conquered the whole of Karapuram and set up his camp at Arukutti. Prince Rama Varma took possession of all Cochin territories as far as Udayamperur in the south and Mamala in the east. At this stage the Raja of Cochin sued for peace and further advance of Travancore forces was stopped. Travancore retained possession of the conquered tracts as far as Arukutti.

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1 Idikkela Menon was appointed *Sarvadhikaryakar* or chief minister when the Paliath Achan was removed from his ministership in 1725. Though his position was somewhat eclipsed by that of the Achan, when the latter was restored to favour, he was kept in his high office till his death. Idikkela Menon is a legendary figure in the annals of Cochin and is celebrated in many popular tales.

Paliath Komi Achan

Paliath Komi Achan who was taken to Trivandrum as a prisoner after the battle of Ambalapuzha (1754) now emerged as the man of destiny to play a decisive role in shaping the future course of the relations between Travancore and Cochin. A brilliant young man of polished manners and high accomplishments, he had a refreshingly original mind which helped him to discard the old ways of thinking and take a new look at the situation. The Achan learnt his first lessons in statecraft in the school of Marthanda Varma and decided to apply them in practical politics for the benefit of his countrymen. During his enforced seclusion at Trivandrum the true realities of the political situation in Kerala dawned on him. More than anyone else in Cochin, he realised the inherent strength of the forces at work in favour of the new born power of Travancore. It was clear to him that the strength of Travancore under Marthanda Varma lay in the elimination of the unruly feudal warlords, in the well-trained and disciplined army and above all, in the strong central government that functioned there under the aegis of the ruler. Moreover, the halo that surrounded the Dutch in Cochin stood exposed in all its hollowness as the Achan looked at it from his distance at Trivandrum. Though with their imposing forts and establishments at Cochin the Dutch still struck terror in the hearts of the local population, it was clear to Komi Achan that their power was only an illusion and that the days of the Dutch in Kerala were numbered. Moreover, the Dutch had by this time almost wriggled out of their treaty obligations to Cochin and joined the side of the Zamorin. Under these circumstances it became an article of faith with the Achan that unless Cochin secured the goodwill and support of the rising power of Travancore, she would soon face annihilation at the hands of the Zamorin. The opportunity he was waiting for soon arrived when the chief of Paliyam, Kunjannattachan, died and Komi Achan returned to Cochin to assume duties as the hereditary Prime Minister of the State and the lord of his own domain.

Treaty between Travancore and Cochin (1757)

Immediately on his arrival in Cochin, Komi Achan advocated an offensive and defensive alliance with Travancore as the most effective way of securing the state against

the aggressions of the Zamorin. On his initiative Marthanda Varma visited the Raja of Cochin at Thrippunithura towards the close of 1756 to confer personally on the subject of the proposed alliance. But the negotiations broke down as the Cochin Raja would not accede to Marthanda Varma's demand for the cession of territories. But Komi Achan was not the man to be disheartened by this failure and he arranged a return visit of the Cochin Raja to Trivandrum. Early in 1757 Raja Rama Varma visited Trivandrum and concluded a formal treaty of friendship and alliance with Travancore (22nd January 1757). By this treaty the two Rajas undertook to live in friendship forgetting all former feuds and not to give support to each other's enemies. Cochin also agreed to cede to Travancore all the territories already conquered and occupied by Travancore and to allow her to purchase for cash all the pepper produced in the country with the exception of 500 candies annually which was reserved for internal consumption. One of the clauses favourable to Cochin was the one by which the Chazhur princess were deprived of their sway over Karapuram. Ten years later they were also made to relinquish their claim to the title of *Perumpadappu Mooppu*.

Zamorin's Invasion (1756-58)

While Travancore was extending her dominions in the south, the Zamorin was pursuing his aggressive career in the north. During the period 1755-57 he defeated the Rajas of Valluvanad and Palghat and annexed large portions of their territory. He then marched into Cochin territory, and scored several victories with the assistance of the chiefs of Cochin. Towards the end of 1756 the Zamorin again advanced with a large army from Cranganore to Parur and Alangad. The Chiefs of both these kingdoms submitted to him without even a show of resistance. The Zamorin set up military stations at Alwaye, Verapoly, Manjummel, Chattanad and other places and appointed *Karyakars* to administer the tracts occupied by him. In the meantime, he also captured the strategic town of Trichur and made it his headquarters in Cochin. Several of the local chiefs offered their allegiance to the Zamorin.[1] Early in 1758 the Zamorin's forces attacked Chennamangalam and occupied and plundered the island after defeating the local militia, the Achan's

1 See *Trichur District Gazetteer*, p. 158-59

family withdrawing for safety to their place in Vaipin. The fortunes of Cochin were at their lowest ebb. Cochin State had now shrunk in size, its territories being limited to portions of the Cochin and Kanayannur Taluks of this District and a part of the Trichur Taluk. The Chief of Paliyam and the Anchikaimals were the only notable chiefs who continued to be faithful to the Raja. Some members of the Paliyam family strongly urged the advisability of purchasing peace by surrendering to the Zamorin and one of them even went over to the Zamorin's side. But Komi Achan rejected all such counsels of despair and went ahead with his plans for continued resistance to the Zamorin. The Dutch who were till then co-operating with the Raja and the Achan in their fight against the Zamorin now quietly withdrew from the scene after accepting the Zamorin's assurance that he would surrender the Dutch possessions including Chettuvai which had been recently conquered by him. At this juncture Raja Rama Varma of Cochin died at Mattancherri in 1760.

Travancore-Cochin Alliance and Suchindram Oath

Kerala Varma (1760-1775) who now ascended the Cochin throne took the momentous decision to enter into an alliance with Travancore. Komi Achan visited Trivandrum to discuss the terms of a new treaty with Travancore. By this time Marthanda Varma had passed away (1758) and Rama Varma, otherwise called Dharma Raja, had ascended the throne of Travancore. After protracted negotiations the terms of the alliance between Travancore and Cochin were finally settled in December 1761. While the main clauses of the earlier treaty (1757) were repeated, it was further agreed that Travancore should assist Cochin in recovering from the Zamorin her lost possessions as far as Pookaitha in the north and Chittar in the east and also certain villages in Valluvanad. Alangad and Parur were to be given over to Travancore. The expenses of the military operations against the Zamorin were to be met by Cochin. If any of the territories of the Zamorin other than those which were conquered by him from the Raja of Cochin were to be captured by Travancore in the course of the war, they were to belong exclusively to her. The Cochin Raja further agreed

1 to maintain perpetual friendship with Travancore,

2 to relinquish all his rights over his territories which by conquest belonged to Travancore,

3 to surrender all his claims over the principalities of all the former feudatories,

4 to render no help of any kind to the enemies of Travancore and,

5 not to enter into any kind of relationship with the former rulers of Purakkad, Thekkumkur and Vadakkumkur.

It may be noted here that Raja Kerala Varma visited Trivandrum in August 1762 and solemnly ratified the treaty, before the altar of Lord Sthanumurthi of Suchindram, Ayyappan Marthanda Pillai, the Minister of Travancore and Paliath Komi Achan, the Prime Minister of Cochin also being present on the occasion.[1]

Defeat of the Zamorin

In pursuance of the provisions of the treaty (1761) Travancore had despatched a strong army under the command of Dalava Ayyappan Marthanda Pillai and General D' Lannoy. It landed at Ernakulam towards the end of January 1762 and was joined by the Cochin army. Early in March the combined forces went into action against the Zamorin's army in Alangad and Parur. In the face of the determined attacks of the Travancore-Cochin forces the Zamorin retreated to Cranganore and Mapranam. The forces under Marthanda Pillai and D' Lannoy pursued the Zamorin's army and converged on Trichur from several directions. The Zamorin was forced to abandon Trichur and withdraw further northwards. The allied forces at last succeeded in pushing the Zamorin's army beyond the northern frontier of Cochin State.[2] They were on the verge of carrying the war into the enemy's territory when the Zamorin sued for peace and the war which had lasted for about eight months came to a sudden end.

1 The document setting forth the terms of the treaty was read and the Cochin Raja took a solemn oath as follows. "We, Vira Kerala Varma Raja, born under the Star Rohini of the Perumpatappu Swarupam, declare in the presence of Sthanumurthi, deity of Suchindram, that neither we nor our heirs, will do, or cause to be done, any act against Sri. Padmanabhadasa Vanchipala Rama Varma Kulasekhara Perumal, Raja of Thrippappur Swarupam, born under the Star Karthikai, or against his heirs. We will not join with those who are his enemies, neither will we correspond with them. We shall never harbour any evil against him or his heirs in thought, word or deed. Truly resolved and solemnly declared at the feet of the Sthanumalaya Perumal." *Travancore State Manual*, Vol. II, T. K. Velu Pillai, p. 359

2 See *Trichur District Gazetteer*, pp. 160-61

Political Settlement (1763)

The terms of the treaty between Travancore and Cochin were fulfilled to the satisfaction of both parties. The Travancore army withdrew from Cochin territory early in 1764. The Cochin Raja was so pleased with the achievements of Ayyappan Marthanda Pillai that he bestowed upon him the village of Puthenchira which the patriotic Dalava made over to his State. The end of the war saw Travancore in possession of the Kingdoms of Parur and Alangad. Before his departure to the south Ayyappan Marthanda Pillai introduced a proper system of administration in these areas. On his death in 1763 Varkala Subba Iyer became the Dalava of Travancore, and during his term of office the rulers of Parur and Alangad surrendered their sovereign rights to Travancore by formal agreements.[1] D' Lannoy remained at Parur to strengthen the fortifications and maintain the peace of the border. It was under his personal supervision and direction that the famous fort called *Nedumkotta* or 'Travancore Lines' was constructed, with a view to preventing the future advance of the Zamorin or other enemies.[2]

In 1763 the Zamorin paid a visit to the Travancore Raja at Padmanabhapuram. He agreed to live in perpetual friendship with Travancore and to pay Rs. 1,50,000 as reimbursement for the expenses of the campaign. The Zamorin also agreed to desist from hostilities against Cochin and to have all disputes with that State settled by the peaceful mediation of the Raja of Travancore. The Zamorin was, however, allowed to retain Perumpadappu and other Cochin villages in Vanneri.

The authors of the *Travancore State Manual* and the *Cochin State Manual* have exaggerated the magnitude of the victory gained by the Travancore and Cochin forces in the war against the Zamorin and attributed the Zamorin's retreat and subsequent treaty with Travancore to the superior heroism of their armies. This view is untenable. No decisive battle was fought in the course of the war so as to afford an opportunity to either side to show their military superiority. On a closer look at the political situation then prevailing in South India, it may be seen

1 *Travancore State Manual*, Vol. II, T. K. Velu Pillai, p. 364

2 See *Trichur District Gazetteer*, p. 161-62

that the Zamorin's decision to sue for peace and the Travancore Raja's ready acceptance of the offer for peace were both dictated by considerations of political expediency. As K. M. Panikkar points out, "That the Zamorin in spite of the fact that he had suffered no heavy defeat sued for peace was due to the exigencies of external policy."[1] By this time Mysore under Haider Ali had risen into prominence and become a menace to the safety of the Zamorin's Kingdom in North Kerala. In the face of this new threat the Zamorin's fight with Travancore looked like a petty domestic squabble. Statesmanship required that the Kerala princes should bury the hatchet and make preparations to meet the common threat. Raja Rama Varma of Travancore had also the foresight and vision to see that Mysore under Haider Ali posed a threat to the freedom of Travancore as well. Moreover, he was also involved in a frontier trouble with the Governor of the Nawab of Arcot at Madurai and wanted peace on the northern border in the largest interests of his State.[2] Another reason why the Travancore Raja agreed to cease the hostilities against the Zamorin was that the former had no personal reason for carrying on the war. His only obligation was to restore the Cochin Raja's territories and having fulfilled that he was ready for peace. Therefore, to Travancore also it was a matter of political expediency that the war against the Zamorin should end at an early date. Under these circumstances when the Zamorin sued for peace, Raja Rama Varma was not the man to miss the opportunity he was waiting for.

End of the Feudal Era

The events leading to the retreat of the Zamorin from Cochin territory mark the beginning of a new epoch in the history of Kerala. The era of Nair predominance came to an end and the era of the modern centralised State began. In the words of K. M. Panikkar, "So far the history of Kerala had been the history of the Nayars. But in 1762 the military power of the Nayars is broken finally in Travancore and in Cochin, and within a few years it was completely wiped out in North Kerala."[3] The success achieved by Marthanda Varma in crippling the power

1 A *History of Kerala*, K. M. Panikkar, p. 263
2 See *Trivandrum District Gazetteer*, p. 205-206
3 *History of Kerala*, K. M. Panikkar, p. 264

of the Nair nobility and consolidating his position in Travancore came almost as a revelation to the Raja of Cochin and his able minister Paliath Achan. It was realised that all the ills of Cochin flowed from the diffusion of power among a number of hereditary chiefs instead of its being centralised in the head of the State. In the treaty of 1761 there was a specific provision to the effect that Travancore would give all assistance to Cochin in putting down the power of the hereditary chiefs and punishing the traitorous ones in particular. Accordingly soon after the expulsion of the Zamorin all administrative powers were taken away from the Nair chiefs and vested in officials appointed by the king. The worst among them were deprived of their wealth and properties and reduced to penury. As a result of these measures the monopoly of power and territorial influence so far enjoyed by the feudal barons was broken and the Raja's power was established on a solid basis. The old Nair nobility which at one time eclipsed royal power now became a thing of the past and on its ruins there arose a new class of Nair officialdom which soon developed into the main prop of royal power in Cochin. In other words, Cochin was reorganised into a centralised bureaucratic state closely on the model of Travancore. The State was divided into Taluks called *Kovilakathumvathukkals*, each of which was under a *Karyakar*. The Taluks were further divided into *Pravrithis*, which formed the units of administration and were presided over by the *Parvatyakarans*. A standing army was organised in Cochin on the model of D' Lannoy's corps in Travancore. It had the *Valiyasarvadhikaryakar* as its head. To meet the additional military expenditure a regular land tax was levied in 1763. It may also be noted in this connection that Komi Achan continued to be the Prime Minister (*Valiasarvadhikaryakar*) in the new set-up till his death in 1779 when the hereditary premiership of Cochin was abolished.

Dispute with the Dutch

A notable event of the period following the expulsion of the Zamorin and the suppression of the local chiefs was the dispute with the Dutch. During the times of Commander Wijerman (1761-64) and his successor Breekpot (1764-69), friendly relations existed between the Dutch Company and the Cochin Raja. In 1769 C. L. Sneff,

an arrogant and tactless Dutch man, became Commander at Cochin. During his term of office the relations between Cochin and the Dutch Company steadily deteriorated. Sneff objected to the construction by Travancore of a fort at Kuriapally opposite to Pallippuram, though the project concerned had been undertaken with the approval of his predecessor. He sent a contingent of 60 Dutch and 300 Indian soldiers to stop the work and when the Travancore Captain refused to obey the injunction, the Dutch forces shot him dead, climbed over the half-finished walls and attacked the garrison. The Dutch were, however, soon forced to retreat with the loss of 36 men including their Commander. The incident would have precipitated a war between Travancore and the Dutch, had not the Raja of Cochin intervened in the dispute. The Batavia Council did not approve of the policies of their Commander at Cochin. Sneff hypocritically blamed his subordinates for the incident and apologised to the Travancore Raja. He did not, however, forgive the Cochin Raja for his role in the episode and soon picked up a quarrel with him. Mattancherri, Chellayi and Amaravati, places adjoining Dutch Cochin, had been recognised in the past as Cochin territory, though the Dutch exercised civil and criminal jurisdiction over the Latin Christians, Konkanis, Vaniyans and Thattans living in these places. In Karkadakam 945 K.E. (August 1770) Sneff put forward the fantastic claim that these territories were under the jurisdiction of the Dutch Company, that the revenues arising from them belonged to the Company and that the Raja had claim only to the palace at Mattancherri. The Cochin Raja retaliated by constructing a fort opposite Dutch Cochin and seeking the help of Travancore against the Dutch. But the Dutch Commander was adamant. He promptly planted the Dutch flag on the walls of the fort as soon as it was finished. In October 1770 he took over the jurisdiction of Mattancherri and not only started collecting the existing dues but also imposed land taxes till then unheard of. At the same time he intrigued with the Zamorin and openly entertained the Cochin rebels who had gone over to the Zamorin's side. Meanwhile, some skirmishes took place between the Dutch and Cochin forces, especially in the island of Vaipin and Travancore secretly despatched 1,500 men to help the Cochin Raja. It seemed as though a war was imminent but it was fortunately averted

by the timely intervention of Batavia. In one of his letters to Batavia written in 1771 the Cochin Raja requested that a responsible person be sent from there to put matters right. The Governor-General responded to the appeal and sent Adrian Van Moens who relieved Sneff early in 1771. Moens who proved himself to be one of the ablest of Dutch Governors settled the dispute amicably and ceded to Cochin "the right of collecting the income from Mattancherri and Chellayi, to collect the farms and customs of Amaravati and to conduct the affairs of Mattancherri and Chellayi and of the Konkinis and their temples". It was also stipulated that the Raja "shall impose no new demand upon the Konkinis, that they shall have full liberty to complain to Dutch Governor, if aggrieved, and that the Raja shall not interfere in any matters of the temple without the knowledge and consent of the Company". Moens also insisted that the Raja should pay Rs. 14,054 to the Company to cover the expenses incurred by them during the period of dispute.

Cochin becomes Tributary to Mysore (1774)

In the last quarter of the 18th century the District was profoundly affected by the Mysorean invasion. In 1766 Haider invaded Malabar and occupied Calicut but he did not molest the territories of the Cochin Raja during this invasion. In 1773 Haider's army descended again on Malabar and took possession of the country. This time Cochin was not spared. The Cochin Raja had to pay a lakh of Ikkeri Pagodas (about 4 lakhs of rupees) as subsidy to Mysore. No further demand was made for the next three years. But in September 1776 the Mysore forces under Sirdar Khan marched into Cochin territory by way of Chowghat and occupied Trichur.[1] Cochin yielded without a struggle. The Raja was forced to become a tributary of Mysore and to pay a *nuzzar* of one lakh of pagodas and four elephants and an annual tribute of 30,000 pagodas. After Cochin became tributary to Mysore Haider accorded to that State a special position in his Empire.

Two Deaths in Cochin

Raja Kerala Varma (1760-1775) died in September 1775, a year before Cochin became tributary to Haider

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1. See *Trichur District Gazetteer*, pp. 163-175, for a detailed account of the Mysorean invasion of Cochin State.

and was succeeded by Rama Varma (1775-1790). As the deceased prince had none of the qualities required of a successful ruler, he had been prevailed upon in 1769 by the Dharma Raja of Travancore and the Dutch Company to delegate his authority to the first Prince (heir-presumptive) who was then hardly 20 years of age. In doing so the claims of the Elaya Raja of the time (the later Rama Varma 1775-1790) had been overlooked as this prince too was a weak and incompetent person. The first prince who was thus entrusted with administrative authority in 1769 was a person of extraordinary ability and is known in history as Saktan Tampuran. He ascended the throne in 1790 and was the Raja till his death in 1805 but he became the virtual ruler of the State in 1769 itself.

Paliath Komi Achan who was Prime Minister of Cochin since 1756 died in 1779. He had played a notable role in the affairs of Cochin State for more than a quarter of a century. A highly patriotic and able minister, the Achan had crippled the power of the feudal barons and established a centralised administration in Cochin. It is a tribute to his statesmanship and patriotism that, though he was himself the most important feudal chief in the realm, Komi Achan readily sacrificed the interests of his class for the good of the State. His contemporaries like Haider Ali and Governor Van Moens held him in high esteem. On hearing of his death Haider wrote to the Raja that Komi Achan had administered the affairs of the State remarkably well and that, if the administration continued to be conducted in the same manner, the Raja could count upon his support in all matters. The Dutch Governor Moens wrote to him as follows:- "The last Paljetter and Prime Minister of the king of Cochin, who died on the 17th June in the year 1779 was a statesmanly man and always full of plans to reinstate his king".[1] On his death Komi Achan was succeeded by one Govinda Menon as *Valia Sarvadhikaryakar*. The hereditary prime ministership of Cochin thus came to an end.

Tipu's Invasions

Tipu Sultan who succeeded Haider Ali in December 1782 left Cochin unmolested in the early years of his reign. This was because he was anxious to make use of the Cochin Raja as an instrument for the achievement of his long

1 *History of Kerala*, Vol. I, K. P. Padmanabha Menon, p. 519

cherished ambition of conquering Travancore. On 26th December 1788 the Raja met Tipu at Palghat at the latter's request. Tipu urged him to put forward his claims to Parur and Alangad which were once feudatories of Cochin and to declare war against Travancore, in case that State refused to concede his claims. In his capacity as the suzerain of Cochin Tipu promised all support to Cochin in the event of a war with Travancore. The Raja was, however, reluctant to act according to Tipu's desire as any action by him on the lines suggested by the Sultan would have made him unpopular with the people and also invited the displeasure of the English East India Company. But being a vassal of Mysore the Raja could hardly refuse to oblige Tipu in some way or other. Hence he offered to act as a mediator to induce the Raja of Travancore to become a feudatory of the Sultan. The Cochin Raja on his return to his State met Raja Rama Varma of Travancore at Annamanada and gave him an account of his interview with Tipu. In the meantime the Sultan had also sent two special envoys to the Travancore Raja. They were received by the Raja in the presence of Major Bannerman, an adviser sent by the Madras Government to Travancore, and were sent back with the firm reply that Travancore would not enter into any alliance with the Dutch without the knowledge and consent of the English East India Company. This reply only served to inflame the Sultan all the more against Travancore.

In 1789 Tipu again summoned the Raja of Cochin to meet him at Palghat, but the Raja excused himself on the ground of ill-health. Even Tipu's request that the Elaya Raja or a responsible minister may be sent to him as a representative of the Raja was politely turned down. This made Tipu a determined enemy of Cochin. The real object of the Sultan in inviting the Raja was to request the latter to negotiate the purchase of Cochin, Cranganore and Azhikotta from the Dutch who were reported to be eager to sell them. Having failed in his efforts to obtain the services of the Cochin Raja in this regard, Tipu made the proposal direct to the Dutch. Meanwhile, the Dutch and Travancore entered into negotiations on the subject and the sale of these forts to Travancore was effected with great speed. Tipu took strong objection to this transaction and challenged its validity on the ground that the lands on which these forts were built belonged in sovereignty

to his tributary of Cochin. He demanded the immediate withdrawal of Travancore troops from Cranganore, the demolition of the 'Travancore Lines' which stood mainly in Cochin territory and the surrender of the Malabar chieftains who had taken refuge in Travancore. Tipu even moved the Madras Government and drew their attention to the illegal act of their ally, the Raja of Travancore. Mr. Holland, then Governor, saw the justice of Tipu's contentions and asked the Raja to give up the forts. Many letters were exchanged and the Raja addressed the Governor-General, Lord Cornwallis, direct and brought to his notice the threatening attitude of Tipu and the position taken up by the Madras Government. The Travancore Raja, however, rejected almost all the demands of Tipu. His contention was that Cranganore and Azhikotta had been taken from the Portuguese by the Dutch in open war and that they had been in Dutch possession for over a century without any rent or tax being levied by any native power and that consequently the Dutch had every right to sell them. Moreover, he argued that the "Travancore Lines" were constructed in Cochin territory with the approval of the Cochin Raja fifteen years before Cochin became tributary to Mysore. The Raja was, however, willing to remove the Malabar chieftains from his kingdom, though he pointed out that they were his relations and no objection had been taken ever before to their presence in Travancore. These answers did not satisfy Tipu and he set his army in motion against Travancore. An attack on the 'Travancore Lines' was made on the 29th December 1789 with 7,000 men and a weak part close to the hills was breached. The Travancore troops resisted the attack with vigour and drove back the invaders. The Sultan himself was lamed for life by a fall during this campaign. But reinforcements soon arrived and Tipu renewed the attack. On the 15th April 1790 the Lines were finally breached and the Travancore troops retreated precipitately. Within six days Tipu demolished the Lines and advanced to Alwaye from where he sent divisions of his army to several stations in Parur and Alangad. Verapoly, Parur, Chennamangalam and other outposts as well as the forts of Cranganore, Azhikotta and Kuriapally were occupied by Tipu's troops. In all these places the Sultan committed the most violent atrocities. Travancore and Cochin lay at the invader's mercy. But the monsoon now set in and further advance

of Tipu's forces was checked. In the meantime, the Governor-General, Lord Cornwallis, sent a British contingent under Colonel Hartley to help the Travancore army. He also started negotiations with the Nizam of Hyderabad and the Mahrattas for a joint attack on Seringapatam. Alarmed at these developments Tipu withdrew from the scene. With this the drama of the Mysorean invasion of Kerala came to an end.

Treaty between Cochin and the English (1791)

Immediately after the departure of Tipu, the Cochin Raja threw off his allegiance to Mysore and became tributary to the Company. The formal treaty between the English East India Company and Cochin was signed on the 6th January 1791, but it was to have effect from the 25th September. Under this treaty the Raja undertook to become a tributary and pay an annual tribute to the Company. The Company, on their part, agreed to assist the Raja in recovering the possessions wrested from him by Tipu and to allow him to exercise complete authority over them under the suzerainty of the Company. The Company also assured the Raja that they would not make any further demands on him and also promised that they would give him the protection due to a faithful tributary and ally. It was also stipulated that the Raja was to be tributary only for those lands which were in the possession of Tipu and with which the Dutch Company was not concerned. Cochin was placed under the Commissioners appointed jointly by the Bengal, Bombay and Madras Governments for the management of the affairs of Malabar. After being placed first under the control of the Madras Government and later under the Government of Bombay, it was transferred to the Madras Government in 1800. Cochin State thus passed under the political control of the English East India Company.

Capture of Dutch Cochin by the English (1795)

The events leading to the capture of Cochin by the English and the final exit of the Dutch from Kerala may now be told. It would be appropriate in this connection to trace the rise of British power in Kerala with particular reference to Cochin. The first Englishman to visit Cochin was Master Ralph Fitch. He arrived at the place on 22nd March 1588 and remained there till 2nd November. At

this time Cochin was an important centre of Portuguese power in Malabar. The British, therefore, turned their attention to other parts of Kerala. With the help of the Zamorin of Calicut they set up factories at Calicut and Cranganore in 1616. In 1634-35, when the Portuguese power in Kerala was on the verge of collapse, the English entered into a treaty with the Portuguese by which they got free access to all Portuguese ports in Kerala. It was after this that some Englishmen settled at Cochin and in 1636 pepper was for the first time exported direct to England. When the Dutch captured Cochin in 1663 the English factors received immediate orders to quit the place and they retired to Ponnani. Soon after the English turned their attention to the Travancore coast and obtained permission to build factories at Vizhinjam in 1664 and at Anjengo in 1668. In 1690 they also obtained permission to build a fort at Anjengo and some time thereafter an English factory was founded at Tellicherry. They also enjoyed the patronage of the Zamorin of Calicut and carried on a flourishing trade at Calicut port.

The Dutch were extremely jealous of the rising power of the English in Kerala. The treaty concluded between Cochin and the English East India Company in 1791 made them feel uneasy. The relations between the Cochin ruler Rama Varma (1790-1805) and the Dutch became extremely strained. The Raja resented the jurisdiction exercised by the Dutch over the Konkanis and Latin Christians and he took steps to deprive them of this privilege. He followed a repressive policy towards the Konkanis. In October 1791 the Dutch came to the rescue of the Konkanis and a detachment of Europeans, Malays and native soldiers with six field pieces attacked the Raja in his place at Mattancherri, but they were driven back with heavy loss. The Raja now made preparations to besiege Cochin and would have actually succeeded in driving the Dutch out of the town, if the English Company's agent Mr. Powney had not interfered and brought about a settlement of the dispute.

Before the turn of the century the international situation became quite unfavourable to the Dutch. Early in 1795 Holland was conquered by Napoleon and with this the Dutch position in the East also became precarious. The Stathholder of Holland who had sought asylum in England issued a proclamation to all Governors and Commandants

in Dutch overseas territories requiring them to allow British troops to occupy all the forts in Dutch colonies, lest they should fall into the hands of the French. Major Petrie, the English Commander, promptly appeared before Cochin at the head of a large force, but the Dutch Governor, Van Spall, refused to surrender the fort. The latter even made a vain attempt to secure the help of the Cochin Raja against the English. Major Petrie, thereupon, laid regular siege to Cochin fort and the Dutch were forced to surrender it to the English on the 19th October 1795. All the Dutchmen living in Cochin were taken prisoners by the English. In December 1796 those who desired to leave Cochin were sent to Bombay to be shipped off to Batavia but many among the Dutch preferred to remain in Cochin. They were in course of time reduced to such great distress that the English East India Company had to give pensions to several of them. Thus ended the historic connection of the Dutch with Cochin.

The Dutch and the Malabar Church

In order to complete the history of the Dutch period, the main events connected with the Kerala Church may also be told. It has already been noticed that one of the immediate consequences of the Dutch conquest was the expulsion of all European Roman Catholic priests from Cochin and elsewhere. They were all ordered to quit the coast. Sebastiani, the Italian Carmelite, was given a respite of ten days. In this predicament Sebastiani fell back upon the powers which he held from Rome and managed to consecrate in 1663 an Indian (Syrian) priest Alexander de Campo (Parambil Chandy) who was a cousin of Archdeacon Thomas and leader of those who submitted to Rome. Alexander de Campo was the first Indian Bishop not only in Malabar but in the whole of India. But after his death in 1677 a Eurasian secular priest was appointed as Vicar Apostolic, and on his death in 1695 the line of European prelates was restored.

Though the Dutch expelled the Catholic priests from their territories they allowed the indigenous Catholics to remain. "With regard to the Latin Catholics on the coast," says Mackenzie, "the Dutch took from them the churches in Cochin town, so that the Catholics (of Cochin) had to go to Vaipin to worship, but did not molest them"[1]

1 *Travancore State Manual*, V. Nagam Aiya, Vol. II, p. 187

The Latin Christians were not only not molested, but the Dutch finding their co-operation quite necessary for trade purposes kept them on friendly terms and appointed them to good positions just as the Portuguese had done. The Dutch had in the early stages also some plans to convert the Latin Catholics of the coast to their own religion. But the Dutch Reformed Religion produced no impression on them and the Dutch ecclesiastical establishment therefore failed to secure any converts. As for the Syrian Christians, the Dutch not only did not seek to impose their authority over them, but even gave them steady support to get new Bishops from Syria in order to retain their independence of Rome.

Before the Dutch conquest the Latin Christians were under the Diocese of Cochin. With the expulsion of all Roman Catholic ecclesiastics from the territories under the Dutch sphere of influence, the headquarters of the Cochin Diocese was removed to a place near Quilon. Nevertheless, after the first outburst of fanaticism the Dutch shed their hostility towards the Carmelites. The latter now returned and resumed their work among the Syrian Christians under Bishop De Campo (Parambil Chandy). One of them, Fr. Mathews by name, became quite friendly with the Dutch Governor, Van Rheede. In 1673 Fr. Mathews got permission from the Dutch Governor to build a church at Chathiath,—now a part of Ernakulam town—the first church in Malabar the Carmelites ever built. They obtained also an order from Bishop Alexander exempting the Chathiath church from his episcopal jurisdiction. In 1673, again, there was built by the Carmelites a church at Verapoly, a hamlet situated a few miles to the north-east of Cochin, on the shores of the inland backwaters, into which flows the river Periyar. This church was built on land given rent-free by the Raja of Cochin. On this site there was also built a residence for Carmelite priests, which has continued to the present day, though the inmates are all indigenous Carmelites. In addition, there was founded in 1682 by the Carmelites a great seminary at Verapoly, which has grown into the present Apostolic Seminary at Mangalapuzha, Alwaye, with its imposing and magnificient buildings and a very large alumni of candidates for priesthood of both the Latin and Syrian rites.[1]

It may be noted that during the first decades of its existence the Seminary at Verapoly catered chiefly to the

1 For a detailed account of the Seminary see Chapter XV.

needs of the Latin community, the Syrian clerics being trained by the Jesuits in their Seminary at Vaipicotta, which was later on transfered to Ambazhakat as a result of the Dutch conquest. At the Latin Seminary of Verapoly there prevailed for a long time some narrow-minded caste prejudice, due to which candidates who were converts from lower castes were not admitted to it. The opposition became so keen that Bishop Stabilini, who was the Vicar Apostolic, had even to resign in 1831, because he wanted to admit such students. But such prejudices vanished in due course.

Due to its cathedral church, the Carmelite monastery, the seminary, and the headquarters of the Vicar Apostolic, Verapoly became famous during the Dutch period and after. By a Brief of Pope Clement XI, dated March 13, 1709, the Vicariate Apostolic of Malabar was even transformed into the Vicariate Apostolic of Verapoly. The Pope also formally extended the jurisdiction of the Verapoly Vicariate to the Dioceses of Cochin (Latin) and Cranganore (Syrian). Thus the spiritual authority over the Latin Christians became fully vested in the Vicar Apostolic of Verapoly. Due to these circumstances Verapoly attained great prominence and came to be looked upon as something of an ecclesiastical capital of the whole of Malabar. The name with its hoary tradition is perpetuated in the present Archdiocese of Verapoly, though it is now having its headquarters at Ernakulam, around which lies the main portion of its Latin Christian congregation.

The Carmelites having gained the goodwill of the Dutch authorities began to minister to the needs of the Latin Christians in the Dutch territories and the adjacent areas, as the Diocese of Cochin was not functioning among these people. Increased facilities also came to them, when due to the intervention of Leopold I, Emperor of Germany, who was approached by Pope Innocent XII, the Government of the Netherlands agreed, on April 1, 1698, to allow one bishop and twelve priests of the Carmelite Order, being Italians, Belgians or Germans, but not Portuguese, to reside in Malabar and continue their missionary activities. In return for this the Emperor was to grant full toleration to the Calvinists in Hungary, which was under the rule of the Emperor. The Carmelites now enjoyed greater freedom to do their work. Thus from the time of the Dutch conquest, the Latin Christians came to be under

the sway of the Carmelites, which continued into the thirties of the present century.

Effects of Dutch Contact with Kerala

The Dutch contact with Kerala was not entirely barren of results. Trade was the primary concern of the Dutch. Therefore they raised the Portuguese blockade and permitted freedom of commerce. This led to a great revival of Kerala trade. The Dutch improved the agricultural economy of Kerala by introducing new products and techniques of cultivation. The Company itself directly undertook the extensive cultivation of coconut in its territories. The Vaipin island was so thickly planted with coconut trees that it lost its military value to a very great extent. Better methods of coconut cultivation and coconut seeds of superior quality were introduced. In the island of Venduruthi alone 4,990 coconut trees were planted. The people in the coastal areas of Kerala emulated the example of the Dutch and took to coconut cultivation on a large scale to meet the increasing demand for coir and coconut oil. The Dutch also gave considerable encouragement to rice cultivation. They were also responsible for undertaking indigo cultivation in Kerala on an extensive scale for commercial purposes. Good quality seedlings were brought from Surat and sown in Alangad and Ernakulam. The seeds were also distributed in Venduruthi, Verapoly, etc., and the local fishermen (Mukkuvans) were entrusted with the cultivation.

The Dutch also introduced several new industries like salt farming, dyeing and printing. Following their example the local rulers took to the salt industry with considerable profit. Several expert dyers were brought to Kerala by the Dutch from Tuticorin. They were given plots of land and other conveniences and encouraged to settle here permanently. With the improvement in the agricultural economy of Kerala and the revival of industries the ports all over the coast showed great signs of activity. Dr. John Fryer who visited Cochin in the course of his voyage to India (1672-1681) describes Cochin as "once a famous mart of Portugal wrested from them and made impregnable by the Dutch." The accounts left by Mr. Forbes (1772) also give us interesting glimpses of the commercial greatness of Dutch Cochin. Forbes describes it as "a place of great trade presenting a striking contrast to Goa; a harbour filled

with ships, streets crowded with merchants and warehouses stored with goods from every part of Asia and Europe marked the industry, the commerce and the wealth of the inhabitants."[1] The other important ports on the coast were Quilon, Anjengo, Colachel and Thengapattanam and all of them developed into great trade centres. The export and import trade of Kerala was almost exclusively in the hands of the Dutch. They exported mostly pepper, cardamom, coir, cotton cloth, tamarind and jaggery. The main items of import were opium, sugar, coffee, Chinese silks, Japanese copper and arms and ammunition. Thus there was a phenomenal increase in trade and commerce as a result of the Dutch contact.

While the economic results of the Dutch contact with Kerala are impressive, the cultural results are practically negligible. Unlike the Portuguese, the Dutch did not set up seminaries or educational institutions. Nevertheless, some of the Dutch men have left us memoirs, accounts and letters which form a source of inestimable value for the history of the Dutch period. The accounts of Linschoten, Nieuhoff and Baldaeus may be particularly mentioned in this connection. To the Dutch also goes the abiding honour of having compiled the *Hortus Malabaricus*, the famous work on Indian Botany which deals in detail with the medicinal properties of Indian plants. Several years of labour were spent in the compilation of this monumental work and it was finally published at Amsterdam between 1686 and 1703 in twelve volumes with 794 nicely executed copper plate engravings. In compiling the *Hortus Malabaricus* the Dutch received help from several scholars, both native and European. The most prominent of the native scholars associated with this work were three Brahmins named Ranga Bhat, Vinayak Pandit and Appu Bhat and an Ezhava by name Itti Achuthan. Apart from the Dutch Governor, Van Rheede, who took a personal interest in its compilation, the most prominent of the European scholars associated with the project was the Carmelite Mathaeus, a highly educated monk well versed in many languages. "All the country round was diligently searched by natives best acquainted with the *habitats* of plants; and fresh specimens were brought to Cochin where the Carmelite Matthoeus sketched them, with such striking accuracy, that there can be no difficulty in indentifying each particular species when you see his drawings. A description of each plan

1 Quoted in *History of Kerala*, Vol. I, K. P. Padmanabha Menon, p. 174

was written in Malayalam, and thence translated into Portuguese, by a resident at Cochin, named Emmanuel Carneiro. The Secretary to Government, Herman Van Douep, further translated it into Latin, that the learned in all the countries of Europe might have access to it. The whole seems then to have passed under the supervision of another learned individual named Casearius, who was probably a Dutch Chaplain, and a personal friend of Van Rheede. A book of its size, on which such care was expended, must have consumed a fortune before its publication, and confers honor, both on those who compiled it and the place where it was compiled."[1]

Causes of Dutch Failure

Like the Portuguese, the Dutch also failed to establish a more enduring dominion in India. This failure was due to a variety of reasons. The most important one was the rise and growth of Travancore into a powerful military State under Marthanda Varma. All the local kingdoms such as Mangad, Parur, Vadakkumkur, Purakkad etc., in whose affairs the Dutch Company had all along interfered, were absorbed in this larger State of Travancore. With this the balance of power in Kerala was upset to the detriment of Dutch interests. The Dutch could no longer play one ruler against another and achieve their selfish aims. Moreover, the illusion of Dutch military greatness stood exposed as the power of Travancore grew.

Another important cause of the disappearance of the Dutch from Kerala was the rise of the British power in India. In the exigencies of the Napoleanic wars the Dutch were compelled to give up Cochin which was then the only Dutch settlement in India. In addition, the Dutch had also to face the rivalry of other European nations whose commercial interests came into clash with those of the Dutch Company. The local states availed themselves of this opportunity to organise effective opposition to the Dutch. The armies of Travancore trained by D' Lannoy for Marthanda Varma proved more than a match to the Dutch soldiers. The English Company regularly supplied arms and ammunitions to all those states who fought against the Dutch. The English factories at Calicut and Anjengo kept up a steady supply of arms and ammunitions to the rulers of Travancore and Calicut in their fight against the

1 *Historical Notices of Cochin*, Whitehouse, pp. 22-23

Dutch. The French who had established themselves at Mahe in 1725 followed a similar policy. The Danes who had for some time close relations with Calicut also did not lag behind other European powers in supplying the Zamorin with arms and ammunitions. Further, in view of the naval superiority enjoyed by the English and the French in the 18th century, the Dutch could not resist the attempts of these powers to supply arms and ammunitions to the native rulers. In the long run this adversely affected the position of the Dutch in Kerala.

It may, however, be noted in this connection that, unlike the Portuguese, the Dutch officers were highly competent men trained in the methods of administration and statecraft. Hence their administrative system was not weak or inefficient . The Dutch were also never in financial difficulties. Their accounts were kept with great care and the pay of their officers was never in arrears. They also exercised the utmost economy in the management of their establishments in India. Moreover, unlike the Portuguese, the Dutch were more tolerant and liberal in their attitude to the local population and their administration in Malabar was not vitiated by massacres or other acts of inhuman cruelty. Consequently, the Dutch were never so unpopular in Kerala as the Portuguese had been. On the whole "the Dutch on the Kerala coast formed in many ways a tolerant and civilising influence as their policy in trade, administration as well as religion was based on sound and liberal ideas. They had no desire to exploit the people who came into contact with them, or to oppress them. Their one object was to carry on trade in such a way as to yield the largest amount of profits and ideas of glory, and desire for heavenly merit by converting the heathen and plundering his temples never entered into their calculations. Their intentions were friendly and the hundred years of their connection with Kerala constituted a period which was in many ways beneficial to the growth of civilisation in Kerala."[1]

MODERN PERIOD

Saktan Tampuran (1790-1805)

The modern period in the history of Cochin begins with the accession to the throne in 1790 of Rama Varma, the Saktan Tampuran, and the treaty concluded by him

1 *A History of Kerala*, K. M. Panikkar, p. 293

with the English East India Company the following year. The reign of this ruler was a period of vigorous administration. "In Rama Varma, the Saktan Tampuran", says K. M. Panikkar, "Cochin produced a Ruler....who showed himself a farsighted statesman, ready to yield to the storm but agile enough to raise his head and exploit every opportunity that presented itself, a ready diplomatist, a strong ruler and a man ahead of his time in financial policy.... He brought order out of chaos in a State whose authority had been reduced almost to vanishing point by centuries of foreign intervention."[1] His sole aim was to strengthen royal power at the expense of the feudal nobility and other anti-royal forces and he adopted several measures calculated to achieve this aim. Fra Bartalomeo, the Carmelite Missionary, who resided on this coast for several years, says of him as follows. "I had several times an audience of him at *Mattincera*, where he frequently sent for me to the palace, as he wished to be made acquainted with different particulars respecting the affairs of Europe. He spoke Dutch exceedingly well, and was desirous of learning English also. As he was a brave and enterprising man, possessed of considerable talents and no little share of pride, he could not bear the idea of being satisfied with the income enjoyed by his predecessors. He therefore exercised every kind of oppression against the merchants; caused three of the overseers of the temple *Thirumala devaswam* to be put to death, because they would not resign to him any part of the treasure belonging to it, plundered the shops and carried away the merchants' property."[2]

Measures to strengthen Royal Power

One of the methods by which the Raja increased his power was by improving the finances of the State. He enriched himself by confiscating the properties of officers found guilty of corruption. He appointed a special class of officers called Captains of Soubahs (each Soubah consisted of two Taluks) to keep a vigilant watch over the conduct of all royal officers within their jurisdiction. Those who were proved guilty of corruption were sentenced to whipping and imprisonment and their whole property was confiscated to the State. The Raja also enriched the coffers of his State by organising independent trade. He

1 *A History of Kerala*, K. M. Panikkar, pp. 421-422

2 Quoted in *Cochin State Manual*, C. Achutha Menon, p. 133

owned a number of vessels commanded by European captains and carried on a brisk trade with all the ports from Bombay to Masulipatam.

Saktan Tampuran followed a policy of 'blood and iron' towards the Konkanis and the Latin Christians. The former were immigrants from Konkan who had taken refuge in Cochin in the 16th century to escape from the persecution of the Portuguese when the Inquisition was established in Goa. During the time of the Dutch they were under the protection of the Dutch East India Company. They were essentially a trading class and had become a very wealthy and prosperous community. The friendly relations which subsisted between the Konkanis and the Dutch invited the displeasure of the Raja. Saktan Tampuran not only extorted money from wealthy individuals in that community but even proceeded to take forcible possession of the costly jewels and idols studded with precious stones which belonged to their temple at Mattancherri, viz., the Thirumala Devaswom Temple. The *Adhikaris* or managers of the temple who got advance information of the proposed move, removed the jewels and idols to Alleppey, but they were apprehended and put to death by the Raja's orders. The most notable of the Konkani chiefs who fell a victim to the Raja's wrath was Devaresa Kini, Chief Merchant of the Cochin Bazaar and owner of most of the *Pandikasalas*.[1]

The Latin Christians also came in for harsh treatment at the hands of the Raja. It may be noted that the Latin Christians, as distinct from the Syrian Christians, had all along enjoyed a privileged position in the community as they were successively under the protection of the Portuguese and the Dutch. After the Dutch capture of Cochin they were not only under the civil and criminal jurisdiction of the Dutch Company but also enjoyed exemption from payment of several taxes payable to the Raja by the Hindus. When a general land tax was imposed in 1763 and also when the rates of taxes were enhanced in 1776 the Latin Christians had resented the collection of taxes from them and fomented internal disturbances. Saktan Tampuran who was determined to bring them under subjection to his Government persecuted them mercilessly, whenever he got an opportunity to do so.[2] Though in 1785 at the instance

1 The story goes that Kini's severed head was brought to the palace for the Raja to see as the first thing (*Kani*) in the morning.

2 See *Trichur District Gazetteer*, p. 169

of the Dutch they had agreed to pay taxes to the State like all other subjects of the Raja, the agreement was not long respected by the ruler. Several Latin Christians were dispossessed of their lands and turned out of the kingdom. The Raja was guilty of several acts of high-handedness and cruelty. Thus the father of the Vicar of Edappilli Church and the brother of the Vicar of Ernakulam Church who were suspected of giving secret information to foreigners were arrested and removed to Trichur, where for nearly a year they were confined in tiger cages heavily loaded with irons. Though both were later let free they were put to death on their way to Ernakulam. In spite of such harsh treatment meted out to the Latin Christians, Saktan Tampuran followed a conciliatory policy towards the Syrian Christians. He gave them lands and settled them in the heart of important towns like Trichur and Thrippunithura. By their industry and hard work these Syrian Christians contributed not a little to the economic growth and prosperity of these towns.

Settlement of Claims to Parur, Alangad etc.

Saktan Tampuran put forward his claim to the districts of Parur, Alangad and Kunnathunad. These territories had earlier been ceded to Travancore by Cochin. After taking the 'Travancore Lines' Tipu overran this part of the country and treated them as his conquests. Under the treaty of Seringapatam the Sultan ceded Parur, Alangad and Kunnathunad to the English. Travancore contended that as these territories were conquered by Tipu after she entered into an alliance with the English East India Company, she was entitled to the restoration of these territories on the conclusion of the peace. The English Company ordered a thorough enquiry into the claims put forward by Travancore. It was at this juncture that Saktan Tampuran put in a claim for these districts on behalf of Cochin. His contention was that Parur, Alangad and Kunnathunad were ceded to Travancore by the previous ruler of Cochin on condition that the Raja of Travancore should assist Cochin in recovering her possessions from the Zamorin as far as Pukkaita. As Vanneri which was on this side of Pukkaita had not yet been recovered, the Cochin Raja argued that Travancore had not carried out her obligations in full. It was also alleged that Cochin had in the past often asked Travancore to return the Districts on this ground and that although

she always promised compliance with the request, no positive action had been taken so far. The English East India Company asked the Raja to produce tangible evidence in support of this allegation. This put the Raja in an embarrassing position and he requested the Commissioners "not to insist on making any further scrutiny into the points in question as he had now become fully convinced that he did not possess any rights to the said districts".[1] The English East India Company, therefore, confirmed the claim of Travancore to Parur, Alangad and Kunnathunad.

Relations with the English

Though the treaty of 1791 provided the basis for friendly relations between the English East India Company and Cochin, the negative decision of the Company in respect of the various territorial claims put forward by Cochin was a sore disappointment to Saktan Tampuran and contributed to a deterioration in the relations between the two parties. When the Company's power was firmly established in Cochin after 1795 English agents interfered in the internal affairs of Cochin State and sought to check the Raja's power. The English even suspected Saktan Tampuran of carrying on secret correspondence with Tipu. The situation worsened further when Col. Macaulay was appointed Resident in Travancore in 1800 with some sort of supervision over Cochin. A tactless and arrogant Englishman, Macaulay treated the Cochin Raja as if he was a subordinate officer under him. The Raja resented such dictatorial conduct on the part of the Resident. When the Dutch malcontents in Cochin who were in secret correspondence with the French in Mauritius waited on the Raja in 1802 with overtures of help from the French and presented to him a portrait of Napoleon, the Raja was not disinclined to lend a willing ear to their advice. His officers thereafter assumed a defiant attitude towards the English and even arrested British subjects within the limits of the British territory lying around the town. The Raja's relations with the English continued to be strained till his death in September 1805.[2]

British Cochin

On the occupation of Cochin by the British in 1795 the Dutch form of Government was continued. But the

1 Quoted in the *Cochin State Manual*, p.136

2 For further details of the reign of Saktan Tampuran see *Trichur District Gazetteer*, pp. 176-79

change of masters proved ruinous to the town and its community in several respects. "The early history of Cochin under the British rule", says Whitehouse, "is not calculated to reflect credit upon the Hon: E.I. Company. Utterly neglected for a long period, with a declining trade, and an impoverished population, generally deprived of all religious and educational advantages, one cannot wonder that it gradually sunk, lower and lower, commercially, socially, and morally".[1] In 1806 the English were guilty of deliberate destruction of the town of Cochin with its stately chapels and magnificent buildings. It was feared at the time that the ministry of Charles James Fox might restore Cochin and other Dutch colonies to Holland and that the only port south of Bombay where large ships could be built would thus be withdrawn from the East India Company. The English officials therefore blew up the Cathedral of Santa Cruz, the fort, the public buildings, and some of the quays and best private houses in Cochin. Mr. Chisholm Anstey who visited Cochin on the 9th of November 1857 gives us a vivid account of the destruction of Cochin by the Company's officials in 1806 and of the town as it stood at the time of his visit.

> "I was agreeably surprised with the appearance of the town. It is not that the destruction was less complete than the vandals of Leadenhall Street designed. On the contrary, it is hard to imagine a more faithfull and exact performance of the will of a superior than was rendered here in 1806 by the Company's Proconsuls to their intelligent and honourable masters. The stupendous quays, shattered into enormous masses by the company's mines of gunpowder, still encumber the anchorage, and make embarkation and disembarkation difficult. Not a vestige remains of most of the public buildings. The magnificent warehouses of the Dutch East India Company, which won admiration from the rest of the world, and envy from our own Company, were the first to be sprung into the air. There is a solitary Tower left—the 'Flagstaff' they call it now—to tell where stood the Cathedral of Cochin, and where the body of Vasco-Da-Gama was buried. His grave has been defiled by us, and its very place is now forgot. 'You are within fifty yerds of it, but on which side I cannot say'—was the only indication which a well-read and careful investigator of local antiquities—himself a resident here for some years past—could give me of the whereabouts of him, who opened the Indian ocean *to our* commerce-to *all* Commerce. One Church —diverted from the Portuguese to the Dutch worship, and from the latter to the Protestant Establishment—is the only one which the Company's Guy Fauxes were pleased to spare. That too is the only building left us whereby *to* justify our faith in the chronicles which record the ancient wealth and splendour of Cochin".[2]

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1 *Historical Notices of Cochin*, T. Whitehouse, p. 31

2 Quoted in *History of Kerala*, Vol. I, K. P. Padmanabha Menon, pp. 180-81

In 1806, the very same year in which Cochin was destroyed by the English, Dr. Claudius Buchanan paid a long visit to Cochin and obtained from the Jews and Syrian Christians of the town a number of rare and valuable manuscripts. The most important of these manuscripts were a copy of the five Books of Moses written on goat skins and found in one of the Black Jews' Synagogues, a copy of the Old and New Testament in old Syriac, and a version of the *New Testament in Hebrew* executed by a learned Rabbi of Travancore about a hundred and fifty years back. All the manuscripts collected by Buchanan have since been preserved in the University Library at Cambridge.

Religious Ferment in Cochin

The period following the death of Saktan Tampuran was an epoch of religious ferment and political unrest. During the reigns of Rama Varma (1805-1809), Kerala Varma (1809-1828) and Rama Varma (1828-1837) there was a wave of pro-Vaishnava influence in Cochin court. These rulers were primarily interested in religious and philosophical studies and they left the administration of the State in the hands of their ministers. They were ardent patrons of the Madhva cult owing to the influence of the Swamiyar of the Sodaya Mutt of Udippi. Even during the reign of Saktan Tampuran the Swamiyar had visited Thrippunithura and won over Rama Varma (1805-1809) and some other princes to Madhvaism. The Raja who had no sympathy for the Madhvas expelled the Swamiyar from the State and as the princes were afraid of the Raja they did not dare to make open profession of their new faith during his reign. On the death of Saktan Tampuran in 1805 the new Raja and the other princes brought the Swamiyar back from Udippi, publicly announced their conversion to Madhvaism and actively worked for the propagation of the faith. This incident created a great sensation in the country and caused considerable annoyance to a section of the people, particularly the Namboothiris. The members of the royal family, however, remained staunch Madhvas and continued to be so for about half a century. Rama Varma (1837-1844), Rama Varma (1844-1851), Kerala Varma (1851-1853) and Ravi Varma (1853-64) adhered to this militant Vaishnavism. On the death of Ravi Varma in 1864 the Cochin royal family returned to its ancient *Smarta* fold.

Revolt of the Paliath Achan (1808-09)

The most important event of the period following the death of Saktan Tampuran was the revolt organised by the Paliath Achan against the English. The Paliath Achan had ceased to be the hereditary Chief Minister of Cochin in 1779. The senior Achan at that time was a boy and when he grew up he made a vain attempt to regain his lost position. The Saktan Tampuran treated the Paliath Achan as the premier nobleman of the State but he would not make him the chief minister or allow him to interfere in affairs of State. During the reign of Rama Varma (1805-1809) the Achan was able to realise his long cherished ambition. Velu Thampi, the Dalava of Travancore, was a personal friend of the Achan as well as a favourite of Resident Macaulay. The Dalava visited the Raja at Thrippunithura and persuaded him to reinstate the Achan in the office of Chief Minister. Velu Thampi's object in doing so was not only to oblige his friend but also to have Cochin on his side in the event of an emergency. The Raja readily agreed to the Dalava's suggestion and appointed the Paliath Achan as his Chief Minister as it was well known that Macaulay was favourably disposed towards the Achan. The Achan was a man of great ability and ambition and with the example of Velu Thampi before him he soon took steps to reduce the Raja to a cypher and made himself the *de facto* ruler of the State.

The period of friendship between Resident Macaulay on the one side and Velu Thampi and Paliath Achan on the other was not destined to last long. The Resident had begun to interfere actively in the internal affairs of Travancore and Cochin. The subsidy which Travancore had to pay to the English East India Company was now hopelessly in arrears and the Resident started demanding payment with relentless severity. When Velu Thampi failed to meet the demands of the Resident the latter insisted that the Raja should dismiss the Dalava. The conduct of Macaulay spurred Velu Thampi to action and he organised an armed insurrection against the English.[1] The circumstances prevailing in Cochin were such that the Dalava could easily prevail upon the Paliath Achan also to join him in the revolt.

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1 See *Trivandrum District Gazetteer*, pp. 212-17 and *Quilon District Gazetteer*, pp. 133-38, for a detailed account of Velu Thampi's revolt.

In Cochin the Paliath Achan was experiencing difficulties in his dealings with Macaulay and the English East India Company. While consolidating his position in the State he had to face the hostility of some very influential persons who were the satellites of the Resident. The most important of them were the late Raja's Chief Minister Raman Menon, his Chief Commandant Govinda Menon and N. Kunjukrishna Menon of Nadavaramba who was himself an aspirant for the office of the Chief Minister. The first two were invited to Chennamangalam to discuss the situation with the Achan and to arrive at some compromise but on their way they were waylaid by the followers of the two Ministers and drowned in the Cranganore river. Kunjukrishna Menon also would have met with a similar fate had he not escaped their vigilance and taken refuge with Macaulay on the advice of the Raja. The Achan demanded the peremptory surrender of Kunjukrishna Menon. On Macaulay's refusal to oblige him the Achan decided to join the side of Velu Thampi and wreak vengeance on the English.

The two Ministers chalked out a common plan of action. They raised recruits from all parts of their respective States and gave them regular training in the art of warfare. But, owing to the timidity of the Cochin Raja and his opposition to any rupture with the English, the Achan was able to raise only a small force of three to four thousand men from his State. In order to remove a thorn from his path he persuaded the Raja to leave Thrippunithura and live in virtual confinement at Vellarappilli, an obscure village to the east of Alwaye. Meanwhile, the confederates entered into secret communication with the French in Mauritius and the Isle of France and received some vague assurances of French help to overthrow the English power in Kerala. Three Armenians who landed at Anjengo in November 1808 and posed themselves as emissaries of the French met Velu Thampi and the Achan at Trivandrum and informed them that the expected French force would arrive by about the middle of January 1809. The Ministers, thereupon, decided to strike the blow at once, to drive the English out of the country before the arrival of the French and rely upon the latter for support in the event of any emergency arising from a renewed English attack.

The plan of the confederates was to launch a simultaneous attack on the British at Cochin and Quilon. On the

midnight of 18th December 1808 an army of 600 men commanded by the Achan and two of Velu Thampi's officers entered Cochin and bombarded the Resident's house. They overpowered the guards, entered and pillaged the building and destroyed all the files and records. But to their dismay they could not find either Macaulay or Kunjukrishna Menon anywhere in the building. The two men had already escaped by having recourse to a stratagem with the assistance of a Portuguese clerk working under him. Macaulay managed to hide himself in a recess in the lower chamber and in the early hours of the morning he escaped to a British ship which had just entered the harbour with reinforcements from Malabar. Kunjukrishna Menon too similarly escaped from Mattancherri and joined Macaulay on board the ship. The rebels in their fury broke open the jail at Cochin and released all the prisoners. By their activities they struck terror into the hearts of the Englishmen living in the town. In the meantime, British reinforcements arrived and the rebels were compelled to retreat from Cochin. The latter joined the forces that were being collected to the north of the town and were soon joined by a division of the Travancore army of Velu Thampi. The combined forces, 3,000 strong, attacked Cochin in three divisions on the 19th January 1809, planted a battery at Vaipin point and continued their bombardment. Cochin was defended by six companies of native infantry and 50 Europeans under Major Hewitt. Both sides suffered heavy casualties, the rebels themselves losing about 300 men. Two days later the insurgents attacked the old Dutch Governor's house on the outskirts of Cochin and destroyed the garden and on the 25th another attack was made from the east. By this time they had become worn out and were forced to retreat, a large number being taken prisoners. Velu Thampi's revolt in the Travancore area of the State was also now showing signs of fizzling out and the rebels in Cochin therefore found their cause hopeless. The English Company issued a proclamation offering friendship or war. The Achan took advantage of the offer and agreed to surrender on condition that he would be assured of "security to his person, honour, family and property". Macaulay agreed to this condition, but he made it clear that Achan would not be allowed to reside in Cochin hereafter. The Paliath Achan made his surrender accordingly on the 27th February 1809 and was immediately

sent to Madras. He was never again allowed to visit Cochin.[1]

The defeat of the Paliath Achan and his surrender form a tragic episode in the history of the revolt of 1808-09. His defection was, no doubt, a serious blow to his friend and compatriot Velu Thampi, but it would be unfair to accuse the Achan of deliberate betrayal. In spite of his best intentions and highly patriotic motives, the odds were against him and there was hardly any chance of his emerging victorious in the final fight. With a hostile Raja and the limited resources of only a small State like Cochin at his disposal, the Achan could not have continued the fight against the English for long without detriment to the long term interests of his king and people. Certainly he was not destined to succeed in the defence of a cause which the gallant Velu Thampi with the superior resources of the larger State of Travancore ultimately failed to defend.

Treaty of 1809 between Cochin and the English

Within a fortnight of the collapse of the insurrection, Raja Rama Varma died at Vellarapilli. His successor Kerala Varma (1809-1828) entered into a new treaty with the English on the 6th May 1809 by which he agreed to pay an additional subsidy of Rs. 1,76,037, being the "sum equal to the expense of one battalion of native infantry", the disposal of the said amount and the distribution of the force maintained by it being left entirely to the Company; to contribute a fresh and reasonable proportion of any additional expenditure that might have to be incurred, "should it become necessary to employ a larger force for the defence and protection of the Cochin territories against foreign invasions"; to allow the Governor-in-Council, whenever he found reason to apprehend a failure in the funds required for the above payments, "to introduce such regulations or ordinances as he shall deem expedient for the internal management and collection of the revenues or for the better ordering of any other branch or department of the Raja of Cochin, or to assume and bring under the direct management of the servants of the said Company Bahadur such part or parts of the territorial possessions of the Raja of Cochin as shall appear to the said Governor in Council necessary to render the funds efficient and available either

1 In 1821 the Achan was allowed to leave Madras and stay in Benares where he lived till his death in 1832.

in time of peace or war"; to abstain from any interference in the affairs of any State in alliance with the Company or any State whatever, and from holding any communication with any foreign State without the previous knowledge and sanction of the Company; to admit no European foreigners into the Raja's service without the concurrence of the Company and to apprehend and deliver to the Company's Government all Europeans found in the State without regular passports from the Government; to allow the Company "to dismantle or garrison in whatever manner they may judge proper such fortresses and strong places within the territories of the said Raja as it shall appear to them advisable to take charge of"; and "to pay at all times the utmost attention to such advice as the English Government shall occasionally judge it necessary to offer to the Raja with a view to the economy of his finances, the better collection of his revenue, the administration of justice, the extension of commerce, the encouragement of trade, agriculture and industry, or any other objects connected with the advancement of the interests of the said Raja, the happiness of his people, and the mutual welfare of both States". Besides the increased subsidy Cochin had also to pay a war indemnity of nearly 6 lakhs of rupees. The treaty of 1809 was modified in 1818 to the effect that the subsidy paid by Cochin was reduced to 2 lakhs of Rupees. With this one modification the provisions of the treaty of 1809 remained in force till the withdrawal of British power from India.

Period of Misrule

The period immediately following the suppression of the rebellion of Paliath Achan was one of gross anarchy and misrule. Lawlessness and corruption had become rampant in the realm. Several of the Nairs who had hitherto followed the profession of arms found themselves unemployed and they posed a serious problem for the custodians of law and order. Government officers of all grades had become corrupt and oppressive. Kunjukrishna Menon of Nadavaramba who had helped the English in the fateful days of 1808-09 was appointed *Valia Sarvadhikaryakar* immediately after the end of the revolt. The new minister was unequal to the new tasks which faced the State. He was an arrogant and self-willed autocrat who pursued a vindictive policy towards his opponents. During his

administration Cochin was on the verge of financial bankruptcy. The total income of the State was about 5 lakhs of Rupees out of which a subsidy of 2 to 3 lakhs had to be paid annually to the Company and a war indemnity of 6 lakhs in instalments so that there were not enough funds left for the maintenance of the royal family or of the administrative services. In these circumstances Cochin could not pay either the war indemnity or the subsidy. Within six months of his appointment the Raja pleaded with the Resident to remove Menon from office, but Macaulay was not the man to let his favourite down. When Macaulay was recalled in March 1810, Kunjukrishna Menon's position began to shake. The new Resident took prompt steps to curb his powers for mischief and in June 1812 obtained the permission of the Madras Government to retire him on pension.

Col. Munro as Resident-Dewan

In June 1812 Col. Munro, the British Resident, took the administration of Cochin into his own hands in order to restore order and good government in the State. In a sense, Munro was the first Dewan of Cochin State as his predecessors were designated only *Valia Sarvadhikaryakar*. Immediately after the assumption of office he embarked on a comprehensive scheme of administrative reorganisation. His first concern was the suppression of lawlessness and corruption. Detachments of the subsidiary force were stationed at important centres and a police force was organised to assist them in hunting down highway robbers and dacoits. Munro himself went on circuit throughout the State to enquire personally into the condition of the people and redress their grievances. Corrupt officers were severely dealt with. As a result of these measures law and order were restored and the moral tone of the administration was improved. Munro also fixed the pay and pension of the officers of the State. The *Karyakars* who were in charge of the Taluks and were exercising both revenue and judicial functions were divested of their judicial and police powers, and their duties were confined merely to the collection of revenue. To carry on the judicial work Munro started Subordinate Courts in Thrippunithura and Trichur and a Huzur Court with appellate jurisdiction was set up in Ernakulam. A force of Police or Tannadars was organised and placed under Tanna Naiks, one for each Taluk. Several

of the vaxatious taxes and cesses which were collected from the people were done away with. Munro also made strict arrangements for the systematic collection of land revenue, customs, court fees and the produce of the forcsts under the direct auspices of th State. Many of the important *Devaswoms* or temples were also brought under the direct management of the Government. An accounts department was organised and the system of accounts prevailing in the Company's territories was introduced. Education also received Munro's attention. In almost every *Pravrithi* a vernacular school was established. As a result of Munro's efficient administration there was a considerable increase in the revenues of the State and Cochin could pay off all the arrears of subsidy due to the Company. On the basis of the recommendation made by Munro the English East India Company also reduced the subsidy levied from Cochin to two lakhs of Rupees in 1818. The privileged position of the Christians, Jews, and Konkanis also attracted the attention of Col. Munro. At his instance the Company gave up in 1814 all control over the Christians. However, to safeguard the interests of the Christian community Munro appointed a Christian Judge in each of the courts and also conferred on Christians a large number of appointments in the Revenue Department. Munro's reforms modernised the administration of Cochin to a very great extent and provided the basis for the reforms introduced by the Dewans of later days.

Nanjappayya

Nanjappayya who succeeded Col. Munro as Dewan of Cochin in 1818 continued the wise policy of his predecessor. An able and vigorous administrator, he gave his personal attention to every minute detail of administrative business. He remodelled the judicial administration, the two Subordinate Courts at Trichur and Thrippunithura being supplanted by the Zilla Courts of Trichur and Anchikaimal (Ernakulam) and the Huzur Court by the Appeal Court, and an elaborate code of civil and criminal procedure was passed. The designation of *Karyakar* was changed into Tahsildar. The income of the State was augmented by the introduction of a new *Abkari* system and the development of the forests of the State. Moreover, the western system of medical treatment was introduced and the Civil Surgeon of British Cochin was appointed as *ex-officio* Durbar

Physician. Vaccination was also introduced in all the Taluks. An English Missionary, Rev. J. Dawson, opened a Dispensary and an English School at Mattancherri and he received all assistance from the Dewan. Punishment of slaves by their owners was made penal by a Proclamation issued in 1821. The most far-reaching measure with which Nanjappayya's name is associated was the Survey and Settlement of wet lands known as the *Kandezhuth* of 996 K.E. (1821). The *hukum-nama* issued in 1821 gave detailed instructions regarding the manner in which lands were to be measured and assessed and the claims of the holders to be settled, and adequate staff was appointed under a Settlement Superintendent to carry out the operations. The whole work of Survey and Settlement was carried out in three years and the registers then prepared formed the basis of land revenue administration in Cochin for years to come. Nanjappayya minted a coin called *puthan* which was in circulation till the time of P. Rajagopalachari (1896-1901). He died in April 1825 after a successful administration of over seven years.

Edappilli

It might be relevant in this connection to refer to the change that took place in 1825 in the political status of Edappilli. Though a small kingdom situated in the territory of Cochin, the Edappilli Chief accepted in that year the protection of the Travancore Government. The origin of Edappilli as an independent kingdom goes back to the 12th century A. D. It was founded by the powerful Namboothiri Brahmin who enjoyed the priestly rights over the famous temple of Thrikkakkara. The ruler of Kalkarainadu failed in his efforts to check the growing power and prestige of the Namboothiri priest and the latter gradually assumed regal status. With the disappearance of Kalkarinadu after the fall of the Kulasekhara Empire in 1102 A. D. a new independent kingdom was set up by the Namboothiri with its capital at Edappilli. The kingdom came to be known as Elangallur Swarupam. The policy of the Edappilli Raja was dictated by considerations of hostility towards Cochin (Perumpadappu Swarupam) and friendship for the Zamorin. It may be noted here that the island of Cochin had formerly belonged to Edappilli and the Raja of Cochin had acquired it as a patrimonial gift. The Zamorin even invaded the Cochin kingdom on behalf

of the Edappilli Raja in order to regain the island of Cochin for his ally and friend. The territory of the Edappilli Raja often served as a spring-board for the Zamorin's attacks on Cochin. The Elangallur Nambiathiri (Edappilli Raja) also commanded the Zamorin's forces in some of the wars. Hence Edappilli was often invaded by the Portuguese, the attacks by Pachecco in 1504 and D'Souza in 1536 being the most disastrous. In 1740 the Edappilli chief entered into an alliance with the Dutch East India Company. Marthanda Varma (1729-1758) and Dharma Raja (1758-1798) of Travancore spared the kingdom from invasion out of respect for the sacerdotal character of the Raja. The Rajas of Edappilli enjoyed independent status till the end of the first quarter of the 19th century. But their power had become so weak by this time that they had often to seek the help of Travancore in collecting their dues from their subjects. The ruler of Cochin influenced the British Resident, Col. Mac Dowall, to have Edappilli placed under his protection in 995 K. E. (1820 A.D.). But the Raja of Edappilli expressed his desire to be under the Travancore Raja. "The Rajas of Cochin", said the chief, "had always been hostile to my house from the earliest ages and the protection of the sovereigns of Travancore has saved what remains to me of the possessions of my ancestors from the encroachment of the Rajas of Cochin; under these circumstances and from a strong feeling of respect and attachment to the Rajas of Travancore, I request that my possessions may be replaced under the protection of Travancore."[1] The British Resident opposed the request, but the Madras Government decided that Edappilli should be retransferred to the authority of the Travancore Government as desired by the Chief. The retransfer was accordingly effected in 1000 K. E. (1825 A.D.). During the reign of Rani Parvathi Bai (1815-1829) Edappilli became one of the *Edavakas* of Travancore State and its chief paid to the Travancore Government a subsidy of Rs. 1082 and 16 chakrams per annum.

Seshagiri Rao

We may resume our narrative of the administrative progress of Cochin under successive Dewans. Dewan Nanjappayya was succeeded by Seshagiri Rao (1825-1830). The relations between the ruling Raja and the new Dewan

1 *Travancore State Manual*, Vol. II, T. K. Velu Pillai, p. 543

were extremely strained and the administration of Cochin faced almost a deadlock as a result of their mutual quarrels and recriminations. When the Raja stopped the allowances paid to the consort of the previous ruler, the Dewan registered his protest. By this act he incurred the displeasure of the Raja and had to leave the State in April 1830.

Edamana Sankara Menon

Edamana Sankara Menon (1830-1835) who succeeded Seshagiri Rao was an unscrupulous administrator. He was an adept in intrigues and he reached the high office of Dewan by practising that art to perfection. His sole aim was to enrich himself, his relatives and his dependents at the expense of the Government and the people. Nepotism was rampant in the administration, all important offices being held by his relatives and favourites. The subsidy due to the Company as well as the salaries of public officials were hopelessly in arrears. The administration became so corrupt and inefficient that there were signs of popular discontent everywhere. A deputation consisting of representatives of the Brahmin, Nair and Christian communities waited on the Governor of Madras at Ootty in 1834 and presented a memorial listing specific charges of corruption and oppression against the Dewan. A preliminary enquiry conducted by the British Resident under orders from the Governor showed that the charges levelled against Menon were *prima facie* true and the Dewan was immediately placed under suspension. A special committee was then appointed with the First Judge of the Appeal Court as president to undertake a more thorough investigation into the charges. An examination of the accounts showed that the Dewan himself had misappropriated over a lakh of rupees, besides the several sums taken by his relatives and friends by questionable means. Criminal proceedings were started against Sankara Menon and on his being found guilty, he was sentenced to five years rigorous imprisonment. All his property was confiscated and sold and almost the whole amount misappropriated by him was recovered by the sale.

Venkatasubbayya

Venkatasubbayya who succeeded Sankara Menon towards the end of 1835 was a man of ability and character. His administration was characterised by a series of useful

reforms. He introduced four elaborate Regulations with a view to bringing the administration of justice into line with that prevailing in British India. The first of these Regulations extended the jurisdiction of the courts and the second laid down rules for the guidance of the Appeal Court. By the third Regulation the Tahsildars were appointed also as police officers and the ultimate supervision over magisterial and police duties was vested in the Dewan. The fourth Regulation constituted the Zilla Courts into the criminal courts of the respective *Zillas* and appointed the judges of the Appeal Court as circuit judges for the disposal of sessions cases. These regulations formed the basis of all subsequent judicial legislation in Cochin State.

A Survey and Settlement of garden lands similar to those of the wet lands in 996 K. E. (1821) were carried out in 1837-38 under the personal supervision of the Dewan and a large number of taxable trees which were planted since the last settlement were brought to book. The Forest Department was placed on a more satisfactory footing. The Dewan bestowed particular attention on agriculture. He opened experimental gardens in Ernakulam and other important Taluk headquarters where different varieties of cotton, indigo, coffee, sugarcane, potato etc., were cultivated. The Dewan did not neglect the cause of education. Though he abolished the vernacular schools established earlier by Munro, a better organised vernacular school was set up at the headquarters of each Taluk. An English school was opened at Mattancherri and an English tutor was appointed for the education of the princes. Venkatasubbayya retired from the office of Dewan in January 1840 as he was *persona non grata* with the ruling Raja and could not carry on the administration with his willing co-operation. He was succeeded by Sankara Warrier who proved himself to be one of the most illustrious Dewans of Cochin.

Sankara Warrier

Sankara Warrier's administration of 17 years from 1840 to 1856 marked a new epoch in the history of Cochin. It was his privilege to have served four successive Rajas. Sankara Warrier laid the foundation of what may be called modern administration and under him Cochin received recognition as a well-governed State. No detail of administration escaped his personal attention. He gave priority in his scheme of things to the proper regulation of finance.

He took affective steps to ensure the prompt collection of revenue and the adjustment of accounts to prevent wasteful expenditure and misuse of public funds. Within a few months of his taking charge the subsidy due to the Company and the salaries of officers began to be paid regularly and in full. His financial reforms converted what was previously a deficit budget into a surplus one. He pursued a carefully laid out programme of public works and covered the countryside with a net-work of roads. The improvement of water communication also engaged his personal attention. By the construction of the Thevara-Kundannur canal the distance by water between Ernakulam and Thrippunithura was reduced by more than one-half. He also undertook minor irrigation projects with a view to bringing under cultivation extensive tracts of land which were till then lying waste. Most of the large public tanks in places like Trichur and Thrippunithura owed their existence to his zeal. The Dewan also did much for the expansion of trade by extending and improving the means of communication and also by abolishing a series of irksome tolls and cesses. Among the humanitarian measures of Dewan Sankara Warrier may be mentioned the abolition of slavery and the emancipation of slaves in 1854. It was also during his administration that an English School and a Charity Hospital were opened at Ernakulam, institutions which developed into the Maharaja's College and the General Hospital of later days. The Dewan took special interest in the English school, inspecting it occasionally and taking part invariably in the conduct of its annual examinations. In short, the period of the Dewanship of Sankara Warrier was one of liberal and progressive administration. The Dewan died in harness on the 23rd October 1856 after about 17 years of dedicated work in the cause of his State.

Venkata Rao

Venkata Rao (1856-1860) who succeeded Sankara Warrier was Dewan for a short period from 1856 to 1860. The new Dewan engaged himself in an unending quarrel with the Raja's Sarvadhikaryakar or Secretary, one Parameswara Pattar and incurred the displeasure of the palace. Nothing constructive was done during the period of his administration. On the other hand, the Dewan alienated popular sympathies by removing from

office several honest men even on flimsy charges. The people became discontented with him and an influential deputation waited on the Governor of Madras at Ootty and another at Madras with memorials praying for the redress of their grievances and the removal of the Dewan. When the Governor of Madras visited Cochin in 1859 more than 10,000 people surrounded the Bolghatti Residency demanding the removal of the oppressive Dewan. Though General Cullen, the British Resident, sided with Venkata Rao, the Madras Governor was no longer able to resist the demand for the removal of the Dewan from office. Accordingly the Raja was permitted to retire Venkata Rao on pension in April 1860.

Sankunni Menon

Thottakkat Sankunni Menon, the son of Sankara Warrier, was the Dewan of Cochin from 1860 to 1879. His Dewanship was an era of many-sided progress. He bestowed special attention on the improvement of the judicial branch of administration. A number of regulations were passed to define the powers and duties of judicial officers and to modify the customary law of the land. Only men with prescribed qualifications could hereafter enter the legal profession and their duties and privileges were defined by legislation. Munsiff's courts were set up in all the Taluks for the disposal of petty civil cases. By the Interportal Trade Convention of 1865 Cochin abolished all inland customs and the tobacco monopoly. This gave a great impetus to inland trade and minimised the chances of smuggling. Further, by this Convention Cochin also got the right to a share in the customs receipts of British Cochin. The Dewan paid careful attention to the development of revenue and the regulation of expenditure. Opium and Ganja were made sources of revenue by being converted into state monopolies in 1861. Public works of all kinds received a great fillip during Sankunni Menon's Dewanship. A department of Public Works was organised in 1868 under a European Engineer. All the main roads constructed in Sankara Warrier's time were metalled and improved while several new roads and bridges were constructed. The construction of embankments and drainage canals in the Vaipin island rendered large areas of land fit for cultivating paddy or planting coconut trees. The Dewan also raised the Ernakulam school to the standard

of a second grade College and opened English schools in all Taluk centres. The hospital at Ernakulam was greatly improved and the Vaccination Department was reorganised. The Sirkar Anchal (indigenous postal system) was thrown open to the public and arrangements were made for transmission of private letters at rates framed on the British Indian model. The salaries of Government servants were raised more than once during Sankunni Menon's administration. The Dewan also abolished the system of exacting compulsory labour for State purposes and penalised the sale and purchase of slaves. These reforms introduced by Sankunni Menon marked him out as a great administrator.

Govinda Menon (1879-1889)

Sankunni Menon was succeeded by his brother Govinda Menon. The new Dewan continued the wise policies initiated by his father and brother. He reorganised the police forces on modern lines and enacted Penal and Criminal Procedure Codes on the lines of the corresponding Acts prevailing in British India. The Raja's Court of Appeal was constituted during this period. The system of grant-in-aid for private schools was introduced. The Ernakulam forshore was greatly improved by extensive reclamations made from the backwaters. During Govinda Menon's administration some of the long standing boundary and territorial disputes between Travancore and Cochin were settled. The disputes related, among others, to the sovereign rights over the Idiyara range of hills adjoining Malayattur and of certain villages belonging to the Elangunnapuzha Devaswom and the right to manage the temple and endowments connected with the latter. The arbitrator appointed by the Madras Government adjudged the Idiyara range as belonging to Travancore. At the same time the right of sovereignty over the Elangunnapuzha temple was declared to vest in Cochin, though the right of management of the temple and its endowment was awarded to Travancore.[1]

The periods during which C. Tiruvenkatacharya (1889-1892) and V. Subramonia Pillai (1892-1896) served as Dewans of Cochin are not noted for any far-reaching reforms. Both these Dewans carried on the administration

1 As the Travancore Government found the privilege of management of the temple and its endowment an inconvenient one they gave it up in 1901.

on the lines laid down by Sankunni Menon, but left hardly any mark on it. But it should be said to the credit of the former that he took steps for the first time for the diffusion of elementary education. Government primary schools, both Vernacular and English, were opened in most parts of the State and a large number of private schools were given financial aid. To Subramonia Pillai goes the credit for reorganising the Medical Department and placing it under a full time Chief Medical Officer.

In spite of frequent changes of Dewans continuity in administration was ensured by the fact that after the death of Ravi Varma in 1864 Cochin had the good fortune of having only three Rajas on the throne during the period of 50 years from 1864-1914. They were Rama Varma (1864-1888), Kerala Varma (1888-1895) and Rama Varma (1895-1914). The last of these rulers is one of the most striking figures in the long line of the rulers of Cochin.

Raja Rama Varma (1895-1914)

Raja Rama Varma was helped by a number of distinguished and experienced Dewans and Cochin received wide recognition as one of the best governed and most progressive States in India. Subramonia Pillai retired from Dewanship in 1896 and the office was then held successively by P. Rajagopalachari (December 1896 to August 1901), S. Locke (acting from August 1901 to September 1902 and again from March to May 1907). N.Pattabhirama Rao (September 1902 to March 1907), A. R. Banerjee (1907 to 1914) and J. W. Bhore (1914-1919). Each of these Dewans introduced far-reaching administrative reforms.

Under P. Rajagopalachari the construction of the railway line from Shoranur to Ernakulam was commenced and completed, the expenses being met from the reserve funds of the State. A scientific cadastral survey of the State was started by him and vigorously pursued. The accounts system was thoroughly reorganised on the British Indian model and a financial code was compiled. The administration of the jails was reformed and intra-mural work in the jails was developed.

The next Dewan, N. Pattabhirama Rao, went ahead with the survey operations. The new revenue settlement for which he was responsible resulted in a substantial increase

in land revenue. He also reorganised the Excise Department and improved its working.

Under A. R. Banerjee the revenue settlement was completed and revenue officers were deprived of their magisterial functions. Steps were taken for the strict maintenance of land records and a Land Revenue Manual and a Village Officers Manual were prepared and brought into force. Stationary Magistrate's Courts were established wherever they were found needed. The police force was also reorganised. Sanitation received special attention. Sanitary inspectors were appointed and a department of Public Health was organised. New departments were opened in Cochin for the improvement of Agriculture and Fisheries. An industrial and economic survey of the whole State was conducted and industrial, technical and commercial schools were opened in select centres. A complete separation of Devaswom and State funds was effected. The beginnings of local self-government were carefully laid by the constitution of Town Councils in important towns under the Municipal Regulation of 1910. The Dewan also conferred a great boon on Ernakulam town by the distribution of filtered water brought from Chowara by means of a pipeline. Steps were taken to bring into existence tenancy regulation which would be beneficial to the tenants and not objectionable to the landlords. A. R. Banerjee was also the first Dewan of Cochin who applied his mind seriously to the development of the Cochin Harbour. Unlike some of his predecessors like P. Rajagopalachari, Banerjee gave preference to indigenous talent before obtaining the services of persons from outside the State.

J. W. Bhore succeeded A. R. Banerjee as Dewan of Cochin in 1914. In the very first year of his Dewanship the Tenancy Regulation was passed into law. A Village Panchayat Regulation too was passed in the same year and a Co-operative Department was organised. Under his guidance Village Panchayats settled down to regular work and were gradually entrusted with judicial functions as well. Bhore also opened industrial schools in different parts of the State and also introduced a comprehensive scheme of communications by land and water based on a well-defined policy. The most notable event that took place during his administration was the abdication of Raja

Rama Varma owing to differences of opinion with the paramount power.

Rama Varma (1914-1932)

During the reign of this ruler Cochin State made further progress in the field of administration. In addition to J. W. Bhore who retired in 1919 there were four others who held the office of Dewan under this ruler. They were T. Vijayaraghavachari (1919-1922), P. Narayana Menon (1922-1925), T. S. Narayana Iyer (1925-1930) and C. G. Herbert (1930-1935). All of them made significant contributions to the progress of Cochin.

Vijayaraghavachari was the first Dewan who formulated a regular policy for the amelioration of the depressed classes. He also took steps to improve the industrial economy of Cochin. The first piece of social legislation, the Nair Regulation, was placed on the statute book during his administration. The revision of the Education Code and the extension of female education were also among his notable achievements. A regulation for rendering Village Panchayats self-contained units with increased powers and another for endowing Municipalities with greater financial and administrative functions were passed into law. It was also during his Dewanship that the Raja, in reply to a memorandum presented to him by the Cochin Mahajana Sabha, made the significant announcement that it was his earnest desire to associate his people with the government of the country in an increasing measure. The Dewan took prompt steps for the early establishment of a Legislative Council in pursuance of this declaration.

The Legislative Council of Cochin was formally inaugurated in 1925 during the administration of P. Narayana Menon. It contained a non-official majority, 30 out of 45 members being elected. The electorate was constituted on a broad franchise and Cochin had the unique honour of having the first lady member in a Legislative Council in India. The experimental part of the Cochin Harbour development scheme was also completed during this time and work was commenced on the reclamation.

During the Dewanship of T. S. Narayana Iyer Mattancherri and some other towns in Cochin State were supplied with good drinking water by the pipe system.

Under C. G. Herbert the conversion of Cochin-Shoranur Railway from metre gauge to broad gauge was started and the third stage of the Cochin Harbour works was completed. A regular department for the advancement of the backward classes was also started. Special loans were given to agriculturists who were in debts.

Sir Shanmughom Chetti

Sir R. K. Shanmughom Chetti who was Dewan from March 1935 to June 1941 ushered in a new epoch in the history of Cochin. The period of his Dewanship covered the major part of the reign of Rama Varma (1932-1941) and was marked by all-round progress. The reform of the Secretariat engaged the earliest attention of Sir Shanmughom. The Land Mortgage Bank and the Debt Conciliation Board were set up by him in Cochin in order to give relief to those agriculturists who suffered from the burden of indebtedness. The Cochin Harbour development scheme was almost completed during his period. The construction of the Anamalai road which connected Anamalai in Madras State and Chalakudi, a railway station on the Shoranur-Cochin Harbour line, was undertaken by him and it helped to provide facilities for transport of merchandise direct to Cochin Harbour. The Dewan also took personal interest in the construction of the Aerodrome at Venduruthi for which the requisite lands were acquired and handed over to the Central Government. The beautification and improvement of Ernakulam town and foreshore and their electrification were also among the notable achievements of the Dewan. The Ram Mohan Palace at Ernakulam which now houses the Kerala High Court was built by him. To Sir Shanmughom Chetti also goes the credit for the constitution of the Staff Selection Board for recruitment to the public services in Cochin and the introduction of the scheme of communal rotation in making appointments. In the judicial sphere the Dewan transformed the erstwhile Cochin Chief Court into the Cochin High Court. The new High Court was formally inaugurated on June 18, 1938 at Ernakulam. Tenancy reforms of various kinds including the Cochin Tenancy Act of 1113 (1937-38) were placed on the statute book during this period. A bill for granting permanency rights to tenants in *Verumpattom* lands was introduced in the Cochin Legislative Council during his Dewanship but it was withdrawn, only to be reintroduced and passed into law in 1118(1943).

The most important of the reforms introduced by Sir Shanmughom Chetti was in the constitutional sphere. He introduced in Cochin a system of dyarchy under which a popular Minister was appointed to administer a few departments of the State Government. This reform paved the way for the introduction of full-fledged responsible government and the extinction of Dewanship in Cochin State in later days.

Later Dewans

On the retirement of Sir Shanmughom Chetti from the Dewanship in June 1941 Komattil Achyutha Menon acted as Dewan till October 1941. A. F. W. Dixon assumed charge of office of Dewan in October 1941 and he continued till November 1943. His Dewanship synchronised with the reign of Kerala Varma (1941-43). It witnessed the most critical days of the Second World War when Great Britain and her allies suffered a series of reverses in the different theatres of war, particularly in South East Asia. The Dewan concentrated his attention so much on the war effort of Cochin that he was even nicknamed "All For War Dixon". He also took steps to meet the political agitation which was taking shape during this period under the auspices of the Cochin State Praja Mandal. On Dixon's retirement in November 1943 Sir George Boag became Dewan. He was in office from November 1943 to August 1944 during the reign of Ravi Varma (1943-1946) and was succeeded by C. P. Karunakara Menon. The period of the Dewanship of Karunakara Menon which coincided with the reign of Kerala Varma (1946-48) saw far-reaching constitutional changes which culminated in the abolition of the age-old Dewanship and the establishment of responsible government in Cochin. In July 1949, during the reign of Rama Varma Parikshit Tampuran, Travancore and Cochin were integrated with the consent of the popular Cabinets then functioning in the two States and the United State of Travancore and Cochin came into existence.

Political Agitations and Constitutional Changes in Cochin

The story of the political agitations in Cochin and the constitutional progress made by the State deserve to be dealt with in greater detail. A succinct account of the National Movement in Cochin and some of the most important political agitations connected with it has already been given in the *Trichur District Gazetteer*. Hence only those events which are relevant to the scope of this volume are

described here. The wave of nationalism and political consciousness which swept through the whole country since the early decades of this century had its impact on this District as well. During the period following the end of the Great War (1914-1918) when Mahatma Gandhi came on the Indian stage with his message of Non-violent Non-cooperation, Paliath Cheriya Kunjunni Achan of Chennamangalam roused the political consciousness of large sections of people by his eloquent and stirring speeches. Several Congressmen from this District also participated in the various Civil Disobedience Movements started by Mahatma Gandhi and courted imprisonment.

In the late thirties while the Travancore area of the District was passing through a period of travail and unrest following the agitation for responsible Government started under the auspices of the Travancore State Congress, the Cochin area enjoyed comparative peace and quiet. The reason for this was that while the Travancore Government under the stewardship of Sir C. P. Ramaswami Ayyar was hostile to public opinion and followed a policy of repression, the Government of Cochin with Sir Shanmughom at the helm of affairs showed susceptibility to public opinion and followed a conciliatory policy of meeting in stages the growing demand for the introduction of responsible government in the State.

The Government of Cochin Act passed on the 17th June 1938 provided for a novel constitutional experiment in the history of the Indian States. The powers of the old Cochin Legislative Council were enhanced and it was made directly responsible through a popular Minister for the administration of certain departments of the State Government. The Council comprised of 58 members of whom 38 were elected. The Dewan was the *ex-officio* President of the Council and in his absence an elected Deputy President presided over its deliberations. Under the Act a popularly elected Minister was responsible for the administration of the following departments:—(1) Agriculture, (2) Veterinary, (3) Co-operation, (4) Public Health, (5) Ayurveda, (6) Panchayats, (7) Uplift of the Depressed Classes, (8) Industries, etc. For the first time in a princely State a Minister whose term of office depended upon the votes of the elected representatives of the people was entrusted with administrative responsibilities and for several years to come Cochin was to be the only State of its kind in India with any semblance of responsible government.

The reform created a good impression all over the country. "The Constitution," said A. B. Keith, "is wisely framed as a first contribution to the achievement of responsible government in full."[1] Subsequent events were to show that the prophecy of Keith came true.

In the elections held to the State Legislature under the new Constitution two political parties, viz., the Cochin State Congress and the Cochin Congress, won 12 and 13 seats respectively. With the help of a few unattached Independents the Cochin Congress Party could assume office and its leader Ambat Sivarama Menon was accordingly sworn in as Minister (Minister for Rural Development) on June 17, 1938 when the new Constitution was formally inaugurated by the Cochin ruler in the Durbar Hall at Ernakulam. Sivarama Menon died in office on August 30, 1938 and in his place Dr. A. R. Menon of the Cochin Congress was appointed as Minister on September 5, 1938. Two more departments of Government, viz., Fisheries and Village Libraries, were transferred to the new Minister. A. R. Menon remained in office till February 25, 1942 when he had to resign in pursuance of the non-confidence motion which was passed by the Legislature. T.K. Nair was appointed Minister in his place.

The working of the dyarchical system did not satisfy the legitimate political aspirations of the people of Cochin. The Cochin State Praja Mandal founded in 1941 had been preparing the ground for an intensive agitation for the achievement of full responsible government. During the Dewanship of A. F. W. Dixon the workers of the Praja Mandal were subjected to much repression and it was not possible for this organisation to carry on its normal political activities.[2] During the Quit India Movement

1 *Cochin*, Government of Cochin (1943, p. 72)

2 In this connection a mistake which has crept into the *Trichur District Gazetteer* may be corrected. It has been stated therein that in connection with the annual session of the Praja Mandal at Irinjalakuda in June 1942 S. Neelakanta Iyer, President of the Praja Mandal and V.R. Krishnan Ezhuthachan, its Secretary, were arrested and sent to jail as a precautionary measure. The statement was made on the authority of the *Kerala Swatantrya Samaram* compiled by K. Damodaran and C. Narayana Pillai for the Government of Kerala in 1957. It has since been brought to my notice that the actual facts were as follows. Mr. Dixon, the Dewan, was opposed to the holding of the Praja Mandal Conference at Irinjalakuda and he explained his position to Neelakanda Iyer and Ezhuthachan. A Conference of Praja Mandal workers was held at Ernakulam to review the situation and it was decided to hold the Conference in spite of the possible ban. The Government took precautionary measures by arresting and sending to the Viyyur Jail all the leading workers of the Irinjalakuda region and a host of volunteers. On hearing this S. Neelakanta Iyer rushed to Irinjalakuda where he was arrested and sent to jail. V. R. Krishnan Ezhuthachan was not arrested or sent to jail in this connection as he was away from the scene preparing propaganda leaflets.

of 1942 though there was not much of activity in Travancore, Ernakulam and other parts of Cochin State shot into the limelight. Several meetings and demonstrations were held in August 1942 under the auspices of the Praja Mandal to protest against the arrest of Mahatma Gandhi and other Congress leaders, but the police interfered and dispersed them all by force. The student population of Ernakulam played a particularly active part in the agitation. The most prominent leaders of the Praja Mandal from this District were Panampilli Govinda Menon and K. P. Madhavan Nair. The Quit India Movement of 1942 boosted the prestige of the Praja Mandal as a political party and in the elections to the Cochin Legislature held in May 1945, 12 out of the 19 candidates put up by that organisation got elected. The Praja Mandal members functioned as an effective opposition in the Cochin Legislative Council.

The experiment in Dyarchy continued during this period. T. K. Nair, the Minister, resigned on July 11, 1945 and in his place Parambil Lonappan was appointed as Minister. On the occasion of the installation of Sri Kerala Varma (March 18, 1946) it was announced that a second Minister would be appointed and a few more departments of Government transferred to the administration of the representatives of the people. The designation of the existing Minister for Rural Development was changed into Minister for Health and K. Balakrishna Menon was newly appointed as Minister for Development on Edavam 1, 1121 (15th May 1946).

In July 1946 the annual conference of the Praja Mandal met at Ernakulam and took the far-reaching decision to start a State-wide agitation for the achievement of responsible government in Cochin. The State Legislature was scheduled to meet at Ernakulam on the 29th July and it was decided that this day should be observed as "Responsible Government Day". In pursuance of this decision huge meetings and demonstrations were held all over Cochin State on that day demanding the end of Dewan's rule and the transfer of full political power to the elected representatives of the people. The session of the Legislature was also boycotted by the members of the Praja Mandal on that day. Labourers in several areas struck work. The ferry services at Mattancherri came to a standstill. The bus services were also dislocated. When the Legislative

Council met at 11 A.M. only seven of the elected members were present. The Maharaja of Cochin, Sri Kerala Varma (1946-48), sent a message to the Council expressing his hope that Travancore, Cochin and Malabar would unite before long and a Kerala State would come into existence but he was silent on the crucial question of responsible government which agitated the minds of the people.

After the demonstrations of the 29th July were over, thirty elected members of the Cochin Legislature submitted a memorial to the Maharaja emphasising the need for the early establishment of full responsible government and requesting His Highness to transfer all departments of Government to the charge of popular Ministers as the first step towards the achievement of that goal. The demand under 'General Administration' was voted down by the members of the Legislature. In the same session a vote of no-confidence was passed in the Council of Ministers and consequently Lonappan and Balakrishna Menon resigned from office on Karkatakom 23, 1121 (8th August 1946) and their portfolios were entrusted to the Dewan. Though the Dewan requested the Praja Mandal to take up office, the request was turned down. It was clear that the dyarchical experiment had failed. In order to overcome the constitutional deadlock the Maharaja sent a message to the Legislature on August 17, 1946 in which he expressed his willingness to transfer almost all departments of Government except Law and Order and Finance to Ministers responsible to the Legislature. The subjects so reserved were to continue as the responsibilities of the Dewan, but the Dewan and the Ministers together were to constitute a Ministry or Cabinet and all decisions were to be taken only after joint consultations among its members. The proposal was welcomed in all quarters as a progressive one. T. K. Nair and K. Ayyappan who headed two small groups in the Legislature expressed their willingness to accept the leadership of the Praja Mandal and join the proposed Cabinet. Consequently the first popular Ministry of Cochin consisting of Panampilli Govinda Menon, C. R. Iyyunni, K. Ayyappan and T. K. Nair assumed office on September 9, 1946. The first decision of the Cabinet was to release all political prisoners. On April 15, 1947 the Cochin Legislative Council also came to have its first elected President in Prof. L. M. Pylee. In spite of the good start the practical working of the government revealed that there was clash of interests between the Dewan on the one side

and the popular Ministers on the other. It was becoming increasingly clear that the only solution for the problem lay in the abolition of the Dewanship and the complete transfer of the whole administration to a popular Cabinet.

In July 1947 when the British Government had made all preparations for their exit from India and the stage for Indian Independence had been set, Pandit Jawaharlal Nehru sent a message to the ruler of Cochin emphasising the need for the immediate establishment of full responsible Government in the State. On August 14, 1947 the Maharaja issued a Proclamation taking away Finance and Law and Order from the charge of the Dewan.[1] While Finance was transferred to the control of the popular ministry, it was decided that Law and Order should be administered by a Minister under the direct control of the ruler. The change provoked the resignation of C. P. Karunakara Menon from office as the Dewan had now become a mere ornamental figurehead. Panampilli Govinda Menon was sworn in as Chief Minister and he was also entrusted with the Finance portfolio. The Maharaja entrusted Law and Order to T. K. Nair in whom he seemed to have had greater confidence as Minister in charge of these subjects. T. K. Nair was responsible only to the ruler for the administration of the concerned departments while the Chief Minister and the Council of Ministers were collectively responsible to the Legislature for the conduct of the Government as a whole. This created an anomalous position and vitiated the smooth working of the administration. A public meeting held at the Rajendra Maidan, Ernakulam, on October 18, 1947 was dispersed by the police by resorting to a lathi charge. There were protests from all over the State against the conduct of the police in the incident. The Chief Minister demanded a public enquiry into allegations of police excesses. The Maharaja rejected the demand on the advice of the Minister for Law and Order. This culminated in the resignation of all the members of the Cabinet except T. K. Nair. A new Cabinet with T. K. Nair as Chief Minister and Parambil Lonappan and K. Balakrishna Menon as Ministers was sworn in. A notable reform of the new Ministry was the Cochin Temple Entry Authorisation Proclamation V of 1123 (1947-48).

1 The only department worth mentioning that continued to be in the charge of the Dewan was the Devaswoms. The proposed constitutional changes were given effect to by the Government of Cochin (Amendment) Act of 1123 promulgated on August 26, 1947.



SRI RAMA VARMA PARIKSHIT TAMPURAN, THE LAST MAHARAJA OF COCHIN (LEFT) AND SRI BALA RAMA VARMA CHITRA TIRUNAL, THE LAST MAHARAJA OF TRAVANCORE (RIGHT) PHOTOGRAPHED AT TRIVANDRUM DURNIG THE DISCUSSIONS ON THE INTEGRATION OF THE TWO PRINCELY STATES

In the meantime the Praja Mandal again went into the wilderness, but in the general elections held in 1948 it was returned with a clear majority. T. K. Nair's party which contested the elections in the name of the People's Congress got only four seats. By this time the Cochin State Praja Mandal had itself merged in the Indian National Congress and the first full-fledged Congress Ministry therefore assumed power in Cochin under the Chief Ministership of E. Ikkanda Warrier. The other members of the Ministry were Panampilli Govinda Menon, K. Ayyappan and C. A. Ouseph. It was when this Ministry was in office that the integration of the States of Travancore and Cochin took place on the 1st July 1949. Referring to the helpful attitude of H. H. Rama Varma (Parikshit Tampuran), the Maharaja of Cochin, to the integration of his State with Travancore, V. P. Menon makes the following observation. "The Cochin Maharaja made practically no demands at all. A typical request of his was that free copies should continue to be supplied to him of the *Panjangam* or *Almanac* which was published by the Cochin Government annually and was priced a few annas. He was prepared to efface himself completely in order that his people might enjoy a larger life."[1]

Progress in the Travancore Area

In order to give the reader a rounded picture of the historical development of the District as a whole, it is necessary to refer to the progress achieved in the Travancore area as well. The Taluks of Thodupuzha, Moovattupuzha, Kunnathunad, Parur and Alwaye which belonged mostly to the erstwhile Travancore State shared in the general administrative and economic progress of that State. They formed part of the erstwhile Kottayam Division of Travancore and benefited from the various administrative, social and economic reforms introduced by a succession of enlightened rulers.[2] The claims of justice and administration in this area received proper recognition at the hands of the Travancore Government from very early days. Parur became the seat of a District and a Sessions Court from the 19th century onwards. Alwaye and Parur towns were brought under the purview of the Town Conservancy and Improvement Regulation of 1076 K.E. (1901 A.D.) in 1911 and 1913 respectively. The Perumbavur Panchayat set

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1 *The Story of the Integration of Indian States*, V. P. Menon, p. 282
2 See *Trivandrum District Gazetteer*, pp. 210-232

up in 1107 K.E. (1932 A. D.) was one of the six Panchayats to be set up in erstwhile Travancore under the Village Panchayat Regulation of 1100 (1925). The Union Christian College, Alwaye, founded in 1921 has contributed to the educational progress of the area. The improvement of communications also received attention. The construction of the Kottayam-Ankamali section of the Main Central Road starting from Trivandrum was completed in 1053 K.E. (1877-78 A.D.) and this was a great step forward in the development of communication. The Moovattupuzha Bridge opened in 1914 and the Neriamangalam Bridge opened in 1935 also added greatly to the facilities of communication. It was, however, in the field of industry that the area registered spectacular progress under the special care of the State. Alwaye developed into a great industrial centre. The Fertilisers and Chemicals, Travancore, Ltd., the Travancore Cochin Chemicals, Ltd., the Travancore Ogale Glass Manufacturing Co. Ltd., etc. which started production at Alwaye in the early forties are landmarks in the industrial progress of the District. Thus the Travancore area of the District was a highly developed one long before the integration of the States of Travancore and Cochin in July 1949. It may also be mentioned here that T. K. Narayana Pillai who hailed from Parur in this District was the first Chief Minister of the new United State of Travancore and Cochin.

Recent Developments

Coming to more recent times, the Ernakulam District has come to occupy an important place in the administrative, political and economic map of modern Kerala. With the formation of the United State of Travancore and Cochin in July 1949 the seat of the High Court of the new State was located at Ernakulam. When the Kerala State was formed in 1956 Ernakulam continued to be the seat of the High Court of the new State as well. The District shot into the limelight during the agitation against the Communist Government which ruled over Kerala from April 1957 to July 1959. The first major incident which sparked off the State-wide anti-Communist agitation in June-July 1959 took place at Ankamali in this District. A general hartal had been organised on June 12 to mark the beginning of the agitation . On June 13 the Police opened fire against a *Jatha* that was being taken out at Ankamali in connection with the agitation. Five died on the spot and two died in

the hospital. The police firing took place about half a furlong from the Ankamali Police Station and the provocation for the same was the alleged threat of a violent attack by the mob on the Police Station. The Ankamali incident roused passions everywhere and set the pace for the agitation which culminated in the dismissal of the Communist Government in July 1959 and the promulgation of President's Rule.[1] In the general elections held in 1960 to the Kerala Legislative Assembly the Congress Party won 13 seats from this District while the Communist Party won only one seat. Alexander Parambithara, who was returned from the Palluruthi Constituency in this District, became the Speaker of the Kerala Legislative Assembly. The District has also had the privilege of sending to the Indian Parliament the only member from Kerala who is a Minister in the Government of India. A. M. Thomas, the present Union Minister for Defence Production, has represented the Ernakulam Constituency in the Lok Sabha ever since the first General Elections of 1951-52.

In the economic field Ernakulam has in recent years forged ahead of all other regions of the State and it is developing fast into one of the most highly industrialised Districts of the Indian Union. The Alwaye-Kalamasseri area is today the industrial belt of the State and some of the major industrial concerns like the F. A. C. T., the Premier Tyres, the Hindustan Machine Tools etc., which are the pride of the State are located here.[2] With the location of the proposed Second Ship Yard and the Oil Refinery at Cochin and a host of new industries springing up all over the area, the industrial future of the District is assured.

Cultural Contributions of the District

We may conclude this study with a brief survey of the cultural contributions of the District. The details of the contributions made in the fields of architecture, sculpture and painting have been given earlier in the section on 'Archaeology' and it is not necessary to repeat them here. Nevertheless, it may be stated that the temples, churches and palaces of the District contain some of the best examples of Kerala art and sculpture. The mural paintings in the

1 See *Trivandrum District Gazetteer*, p.p. 246-48 for some of the other events connected with the agitation.

2 See Chapter V for details of the industrial concerns in the area.

Mattancherri Palace and elsewhere constitute a class by themselves and form an integral part of the rich cultural heritage of Kerala.[1]

In the field of literature the contributions are equally significant. One of the earliest literary compositions associated with this District is the *Sukasandesa* of Lakshmidasa and it has been assigned to the first half of the 14th century A.D. But it was only with the rise of Cochin to political prominence in the Portuguese period that literature and learning made striking progress. Some of the Cochin Rajas of this period were liberal patrons of men of letters. Vira Kerala Varma (1537-1565) was the patron of Neelakanta, the author of the Malayalam *Champu, Thenkailanadhodayam*. Kesava Rama Varma (1565-1601) was the patron of Balakavi who wrote the *Ramavarmavilasam* and *Ratnakedudayam*. Narayana, the most famous of the Mahishamangalam poets, and the author of the *Rajaratnavaleeyam Champu* and *Naishadha Champu* also enjoyed the patronage of this ruler. Vira Kerala Varma (1601-1615) was the patron of the celebrated Melpathoor Narayana Bhattathiri and it was under his patronage that the *Gosrinagaravarnana* and *Virakeralaprasasti* were written by Melpathoor. Vedantacharya, the commentator of *Kavyaprakasa*, was also a prominent scholar in the Cochin court during this period and he seems to have been patronised by Ravi Varma who ruled Cochin during 1615-1624. The *Patapattu* written by an anonymous author of the District about 1675 A. D. describes the political developments in the Perumpadappu Swarupam during the period between 821 and 845 K. E. (1646-1670). Written in *Kilipattu* style it takes a high rank among the war songs in Malayalam. The *Hortus Malabaricus* compiled under the Dutch Governor, Henrick Van Rheede (1673-1677), also deserves a place of honour among the literary and scientific works compiled in the District, though it was finally published from Amsterdam.

In the 19th century there was considerable literary output under the patronage of the kings of Cochin. Rama Varma (1805-1809) who came under the influence of the teachings of Madhva wrote a *Stotra* in Sanskrit called *Purnatrayisastuti* about the Deity of the temple at Thrippunithura. His brother Kerala Varma (1809-1828) was a great scholar in Sanskrit and a generous patron of literature.

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1 In this connection attention is invited to the *Cochin Murals* by V. R. Chitra & T. N. Srinivasan.

He is credited with having compiled more than 50 *Kathakali* works in Malayalam. He also wrote a few *Stotras* in Sanskrit such as *Purnatrayisasataka* and *Dasavataraslokamala.* Kerala Varma also attracted to his court many scholars and poets of the age. His sister Subhadra was a good scholar. Scholars and men of letters were invited by her and given all encouragement in the Cochin court. The most important of these scholars were Arur Madhava Atitiri (1765-1836) the author of the *Uttaranaishadha,* Krishnan Kartha of Cheranellur (1765-1845), the author of *Chitpuresastuti,* Narayanan Namboothiri of Ilayedam (1770-1840), the author of the *Ushaparinaya Champu* and Bhaskara of Mutukkurissi, the author of *Sringaraleelatilaka.*

In recent times also the Cochin royal family produced notable scholars. Subhadra (1844-1921), also known as Ikku Amma Tampuran, was a talented writer. Among her important works may be mentioned *Saubhadrastavam, Bhagavatyastakam, Yudhakandam pana,* etc. Rama Varma, the Cochin ruler who abdicated the throne in 1914, was a great Sanskrit scholar and patron of learning, and was popularly known as *Rajarshi.* He started the Sanskrit College in Thrippunithura and instituted here an annual conference of scholars well versed in the different branches of learning. Rama Varma Appan Tampuran (1875-1941) who also belonged to the Cochin royal family was a famous literary critic and prose writer in Malayalam. He was the Editor of the *Rasika Ranjini,* the Malayalam Magazine published from Trichur and also the founder of the Mangalodayam Press, Trichur. Rama Varma, the last in the line of the rulers of Cochin, popularly known as Parikshit Tampuran, was one of the greatest Sanskrit scholars of Kerala and an authority on *Nyaya.* His commentary called *Subodhini* on the *Bhasaparicheda Muktavali, Dinakariya* and *Ramarudriya* (*Tarangini*) are notable works in the field. He has also written the *Bhavarthadipika* commentary on the *Rukminiswayamvaram Champu* of Itavettikat Namboothiri. In collaboration with Rama Pisharoti he wrote a commentary on the *Abhijnanasakuntala* of Kalidasa. Among his other Sanskrit works may be mentioned *Prahladacharita, Ambarikshacahrita, Sukanyacharita, Radhamadhava* and *Stotras* like *Gangastava* and *Purananilayadurgastava.*

The District has also produced many other scholars and writers of eminence in recent times. One of the most

outstanding of such scholars is the great historian K. P. Padmanabha Menon (1857-1919). His *Cochi Rajya Charitram*, and the *History of Kerala* are monumental works in the field. Sahityakusalan T. K. Krishna Menon, who edited the four volumes of the *History of Kerala* on behalf of Padmanabha Menon was also a gifted writer and scholar. A notable poet of this District was K. P. Karuppan (1885-1938). His poems which have often social justice as their theme have a peculiar charm of their own. Paliath Cheriya Kunjunni Achan (1881-1942) of Chennamangalam was also a vigorous prose writer and poet. As the Editor of the *Kerala Kesari*, a Malayalam Magazine, he spread among the people the message of national freedom and communal harmony.

Another conspicuous literary figure of modern times was A. Balakrishna Pillai,known to the world of letters as 'Kesari'. He is acknowledged by many a living Malayalam writer of repute as his literary teacher or "Sahitya Acharya". Balakrishna Pillai started his literary career as the Editor of a political-cum-literary periodical known as "Kesari". He was also one of the pioneer short-story writers in the language. He has translated into Malayalam the works of several writers belonging to foreign countries like the Soviet Union, France etc. In addition, he was a critic of outstanding ability and is even regarded as the father of scientific literary criticism in the Malayalam language. He had also done extensive research in the fields of pre-history, archaeology, literature etc.

Edappilli in this District has given birth to two of the most popular poets of modern Malayalam. They are Edappilli Raghavan Pillai (1909-1935) and Changampuzha Krishna Pillai (1913-1948). Both excelled in lyric poetry and their poems which are unsurpassed in their beauty and felicity of expression are read with interest even today. The most important works of Raghavan Pillai are *Thushaharam*, *Navasaurabham* and *Maninadam*. Changampuzha Krishna Pillai has to his credit a number of poems such as *Ramanan*, *Bhashpanjali*, *Swararagasudha*, etc., and he is in a sense the Keats of Malayalam literature.

Shri P. Kesavadev who hails from this District is one of the outstanding short-story writers and novelists in Malayalam. The short stories written by him in his early years depict the life of the down-trodden. In his later years he

turned his attention to the writing of novels and has made significant contributions in the field. *Nati*, *Otayil Ninnu*, *Bhranthalayam*, *Oru Ratri*, *Olakka* and *Ayalkkar* are among the best known of his novels. The last mentioned novel won the Kendra Sahitya Akademi Award for the best Malayalam work in 1964. Vailoppilli Sreedhara Menon who too belongs to Ernakulam is a poet of considerable distinction. Among the living literary celebrities of the District Mahakavi G. Sankara Kurup deserves special mention. His name is associated with symbolism and mysticism in Malayalam poetry. Among his important works are *Vilasalahari*, *Sahityakauthukam*, *Chengathirukal*, *Nimisham*, *Odakuzhal* etc. He has translated into Malayalam several of the works of Rabindranatha Tagore including the famous *Gitanjali*. His *Viswadarsanam* won the Kendra Sahitya Akademi Award for the most outstanding work in Malayalam for the year 1963. Thus a survey of the literary scene shows that the Ernakulam District has made its inestimable contributions in the field of literature and learning.

APPENDIX

CHRONOLOGY OF THE RULERS OF COCHIN

1	Unni Rama Koil I	—1503
2	Unni Rama Koil II	1503-1537
3	Vira Kerala Varma	1537-1565
4	Kesava Rama Varma	1565-1601
5	Vira Kerala Varma	1601-1615
6	Ravi Varma	1615-1624
7	Vira Kerala Varma	1924-1637
8	Goda Varma	1637-1645
9	Vira Rayira Varma	1945-1646
10	Vira Kerala Varma	1646-1650
11	Rama Varma	1650-1656
12	Rani Gangadhara Lakshmi	1656-1658
13	Rama Varma	1658-1662
14	Goda Varma	1662-1663
15	Vira Kerala Varma	1663-1687
16	Rama Varma	1687-1693
17	Ravi Varma	1693-1697
18	Rama Varma	1697-1701
19	Rama Varma	1701-1721
20	Ravi Varma	1721-1731
21	Rama Varma (Died at Kurikkad)	1731-1746
22	Kerala Varma (Died at Trippunithura)	1746-1749
23	Rama Varma	1749-1760
24	Kerala Varma	1760-1775
25	Rama Varma	1775-1790
26	Rama Varma (Saktan Thampuran)	1790-1805
27	Rama Varma (Vellarappilli)	1805-1809
28	Kerala Varma (Thrippunithura)	1809-1828
29	Rama Varma (Thrippunithura)	1828-1837
30	Rama Varma (Irinjalakkuda)	1837-1844
31	Rama Varma (Trichur)	1844-1851
32	Kerala Varma (Benares)	1851-1853
33	Ravi Varma (Thrippunithura)	1853-1864
34	Rama Varma (Thrippunithura)	1864-1888
35	Kerala Varma (Thrippunithura)	1888-1895
36	Rama Varma (Trichur)	1895-1914
37	Rama Varma (Madras)	1914-1932
38	Rama Varma (Chowara)	1932-1941
39	Kerala Varma (Trippunithura)	1941-1943
40	Ravi Varma (Thrippunithura)	1943-1946
41	Kerala Varma (Ernakulam)	1946-1948
42	Rama Varma (Thrippunithura)	1948-1964

CHAPTER III

PEOPLE

Total Population according to Sub-divisions

The 1961 Census figures show that the total population of the Ernakulam District is 1,859,913. Ernakulam gets the third rank in population among the Districts of Kerala and the proportion of the population of the District to the total population of the State is 11.10%. The details of the distribution are given below:-

Rural and Urban Population, 1961

	Persons	Males	Females
Total	**1,859,913**	**931,248**	**928,665**
Rural	1,464,603	727,922	736,681
Urban	395,310	203,326	191,984

The Taluk-wise rural and urban population as per the 1961 Census with sex-wise details is also given below:-

Taluk-wise Population Figures, 1961

Taluk	Total Rural Urban	Persons	Males	Females
Parur	Total	221,183	109,396	111,787
	Rural	200,331	99,260	101,071
	Urban	20,852	10,136	10,716
Alwaye	Total	226,545	113,078	113,467
	Rural	205,682	101,949	103,733
	Urban	20,863	11,129	9,734
Kunnathunad	Total	229,282	113,931	115,351
	Rural	213,135	105,578	107,557
	Urban	16,147	8,353	7,794
Kanayannur	Total	379,951	191,060	188,891
	Rural	217,877	108,538	109,339
	Urban	162,074	82,522	79,552
Cochin	Total	313,977	158,637	155,340
	Rural	168,107	82,555	85,552
	Urban	145,870	76,082	69,788
Moovattupuzha	Total	301,623	150,631	150,992
	Rural	272,119	135,527	136,592
	Urban	29,504	15,104	14,400
Thodupuzha (No urban area)	Rural	187,352	94,515	92,837

Density of Population

According to the Census of 1961 the density of population in Kerala per sq. mile comes to 1,127 persons. The density in Ernakulam District is above the State average. There are 1,442 persons per sq. mile and in this regard Ernakulam occupies the third place. The density of population in the rural areas is 1,185 and that in urban areas 7,379. Considered Taluk-wise, the density is the highest in Cochin Taluk and the lowest in Thodupuzha.

The following table gives the Taluk-wise details of density of population from 1921 to 1961.

Variation of Density 1921-1961

Taluk	1921	1931	1941	1951	1961 Total	1961 Rural	1961 Urban
Ernakulam District	**647**	**819**	**990**	**1,187**	**1,442**	**1,185**	**7,379**
Parur	1,576	1,890	2,146	1,521	2,989	2,834	6,262
Alwaye	786	955	1,133	1,385	1,798	1,669	7,532
Kunnathunad	411	507	603	699	876	828	3,637
Kanayannur	1,515	1,819	2,128	2,510	3,049	2,103	7,718
Cochin	2,402	3,110	3,821	4,784	5,772	3,891	13,012
Moovattupuzha	525	692	863	993	1,185	1,116	2,727
Thodupuzha	145	230	313	406	475	475	..

Sex Ratio

The percentage of males to the total population is slightly higher than the percentage of females. There are 931,248 males and 928,665 females in the District. The sex ratio works out to 997 females per 1,000 males against the all Kerala figure of 1,022 females per 1,000 males. It may be mentioned here that the all-India ratio is 941 females for every 1,000 males.

Birth Place

According to the Census of 1961 more than 99 per cent of the total population of the District were born in the State of Kerala. Persons belonging to all the States of the Indian Union except the Union Territories of Dadra and Nagar Haveli the State of Nagaland and the territory of Sikkim were enumerated here. The foreign nationals who were enumerated in the District were born at Aden, Australia, Austria, Belgium, Brazil, Burma, Canada, Ceylon, China, Denmark, Ethiopia, Finland, France, Germany(West)

Greece, Hungary, Indonesia, Iran, Iraq, Ireland, Italy, Japan, Nepal, Netherlands, Norway, Pakistan, Philippines, Poland, Portugal, Saudi-Arabia, Seychelles, Singapore, Malaya and British Borneo, Spain, Sweden, Switzerland, Union of South Africa, U.S.A., U.S.S.R. and Yugoslavia. The following statement gives the number of persons born within and outside the State.

Distribution of Population on the basis of the Place of Birth (1961 Census)

	Place of Birth	Total	Rural	Urban
1	Within the State of enumeration			
	(a) Born within the Ernakulam District	1,727,829	1,392,122	335,707
	(b) Born in other Districts of the State	114,455	69,057	45,398
2	States in India beyond the State of enumeration	14,395	2,636	11,759
3	Born in countries in Asia beyond India (including U. S. S. R.)	1,329	153	1,176
4	Countries in Europe (excluding U. S. S. R.)	1,139	13	1,126
5	Countries in Africa	52	9	43
6	Countries in North America and South America	62	7	55
7	Countries in Oceania	4	..	4
8	Born at sea	..	..	..
9	Unclassifiable	648	606	42

Growth of Population and Connected Problems

The population of the Ernakulam District has registered a steady increase in recent decades in conformity with the trends in other parts of the State. In 1951 the total population was, 1,530,143 while in 1961 it increased by 329,770. The percentage increase during the decade 1951-61 works out to 21.55. The causes of the growth of population are many and varied. Increase in the expectation of life at birth is the most important cause. During the last decade the expectation of life has increased by more than a year every year due to such causes as better control of epidemics, massive B.C.G. campaign, improvement in sanitation, etc. etc. The immigration of people into the District is yet another factor to be reckoned with. There are several big factories and commercial establishments in and around Alwaye, Ernakulam and Cochin. People from outside flock to these places in search of better employment opportunities. Such of those who succeed in getting jobs settle here permanently and contribute to the increase

in population. One of the serious problems arising from such increase in population is the abnormal increase in the value of land. While immigration has thus been taking place on a large scale there have been cases of emigration too. The hilly tracts of Malabar with their large areas of virgin land have lured a lot of enterprising people from this District, particularly Christians. It may also be mentioned here that many educated and qualified persons from this District have gone out of India in quest of employment.

Distribution of Population between Rural and Urban Areas

Just as the bulk of the area of the District is rural a majority of the population is also rural. Out of the total population of 1,859,913, there are 1,464,603 persons who live in rural areas and 395,310 who live in urban areas. In other words 78.75% of the total population live in villages and 21.25 in towns. The proportion of urban population to the total population is well above the State average of 15.11% and Ernakulam gets the third rank among the Districts of Kerala in this regard. It may also be mentioned that the percentage of the urban population of the District to the total urban population of the State is 15.45. The Municipal towns of Ernakulam, Mattancherri, Fort Cochin, Alwaye, Moovattupuzha, Parur and Perumbavur and the non-municipal towns of Edappilli, Thrippunithura, Willingdon Island, Njarakkal and Piravam constitute the urban areas in this District. The following table gives the total population (sex-wise) and density per square mile in each of these towns.

Urban Population, 1961

Town	Density per Sq. mile	Total Population		
		Persons	Males	Females
Total	**7,379**	**395,310**	**203,326**	**191,984**
Municipal Town				
1 Ernakulam	10,777	117,253	60,271	56,982
2 Mattancherri	31,188	83,896	42,671	41,225
3 Fort Cochin	32,478	35,076	17,488	17,588
4 Alwaye	7,532	20,863	11,129	9,734
5 Moovattupuzha	3,001	22,900	11,837	11,063
6 Parur	6,262	20,852	10,136	10,716
7 Perumbavur	3,697	16,147	8,353	7,794
Non-Municipal Town				
8 Edappilli	4,746	30,377	15,244	15,133
9 Thrippunithura	3,888	14,444	7,007	7,437
10 Willingdon Island	2,699	11,121	8,221	2,900
11 Njarakkal	4,752	15,777	7,702	8,075
12 Piravam	2,070	6,604	3,267	3,337

The increase in the urban population of Ernakulam District during 1951-61 is by 151,394. In the towns of Ernakulam, Moovattupuzha, Perumbavur and Njarakkal the population has increased by about 50% during the period. The increased facilities for employment of various kinds have drawn a large number of people to the urban areas of the District from the interior and this partly accounts for the increase in the urban population. Moreover, some of the mofussil areas adjoining the major towns of Ernakulam and Mattancherri have achieved a high degree of development in the wake of the steady industrialisation of the region. Edappilli and Willingdon Island have thus grown to be towns in 1961. It may also be mentioned in this connection that the concept of the town at the Census of 1961 was much different from what it was in 1951. In the Census of 1951all Municipal towns and conservancy towns of the Travancore-Cochin area and certain Panchayat Boards of the Malabar area were treated as towns in Kerala. In the Census of 1961 the definition of the town was changed and applied almost uniformly throughout India. The new criterion required in case of places other than Municipalities, Cantonments and Civil Lines that there should be a minimum population of 5,000 and density of not less than 1,000 persons per sq. mile and also that at least 75 per cent of the male population should be engaged in non-agricultural pursuits. All these factors account for the relatively high proportion of urban population in the District in 1961.

Distribution of Population on the basis of Mother Tongue

As in all Districts of Kerala, Malayalam is the language spoken by the vast majority of people in Ernakulam also. Tamil occupies the second place in this respect in all Districts except Ernakulam and Cannanore. While in Cannanore District Tulu is the second important language (with regard to the number of people who speak the language), in Ernakulam it is Konkani which occupies this position. In 1961 the number of persons speaking Tamil was 25,804 while Konkani was spoken by 31,241. Konkani is generally regarded as a dialect of Marathi, though there is also a view among scholars that it is one of the early Prakrits of India and as such an independent language. The presence of the Gowda Saraswaths as an important community in the District accounts for the important position occupied by

Konkani. Almost all those whose mother tongue is not Malayalam can understand and speak Malayalam because of their close and age-long association with the local people. At the same time only a minority of those whose mother tongue is Malayalam can speak other languages, though they can understand a little of Tamil.

The following statement furnishes the 10 important languages of the District according to the Census of 1961.

Mother Tongue	Total Speakers
Malayalam	1,778,414
Konkani	31,241
Tamil	25,804
Kudubi	5,513
English	2,870
Gujarathi	2,717
Telugu	2,056
Hindi	2,054
Marathi	1,646
Urdu	1,377

Differences in Dialect

Kerala is generally divided into three regional Dialects, the Southern Dialect, the Middle Dialect and the Northern Dialect. The Ernakulam District falls within the area where the Middle Dialect of Malayalam is in vogue. In the Middle Dialect there is a considerable admixture of Sanskrit words. But even inside the District there is difference on the one hand between the colloquial language and written language in Malayalam and on the other between the dialects spoken by the various sections of society. The rank and file of the Gowda Saraswaths and the Kudumi Chettis generally speak Malayalam with a peculiar accent. The Scheduled Tribes also speak different dialects of Malayalam which are not very intelligible to those who have not close association with them. These dialects also contain a considerable admixture of Tamil words. In recent times the differences in dialects spoken by the different classes have almost narrowed down due to the rapid growth of communications and the spread of education among the backward communities.

Scripts used

The modern Malayalam script is in vogue all over Kerala. It has developed out of the *Grandha* script or *Arya*

Ezhuthu which was popularised by Thunchathu Ezhuthachan who lived in the 17th century A.D. The monopoly of the Brahmins in using *Grandha* collapsed in course of time when the Nairs (17th century), Ezhavas (18th century) and Muslims (19th century) made abundant use of it. It may be pointed out that the oldest alphabet current in Kerala was *Vattezhuthu*, otherwise called *Nanammonam*, which was in vogue even before the 8th century A.D. The increasing popularity of the *Grandha* script resulted in the decline of *Vattezhuthu.*

RELIGION AND CASTE

The most important religious communities of the District are the Hindus, the Christians and the Muslims. According to the Census of 1961 out of a total population of 1,859,913 in Ernakulam the Hindus number 854,896, (45.97%) the Christians 792,458 (42.61%) and the Muslims 210,040 (11.29%). According to the Census of 1961 the above figures represent an increase of 21.74% over the population of 1951 in respect of the Hindus, and an increase of 21.32% in respect of the Christians. The Muslim population also recorded a considerable increase of 21.93% during the decade 1951-61. In addition to the major communities mentioned above, the Buddhists, the Jains, the Sikhs and the Jews also form part of the cosmopolitan population of this District, though their proportion to the total population is negligible. The Buddhists number 143, the Jains 993 and the Sikhs 692. There are 691 persons, professing other religions. This would include 359 Jews. The percentage increase in the population of the Buddhists during the decade 1951-61 was 521.74%, that of the Jains 308.64% and of the Sikhs 184.77%. Only in the case of the Jews the population had undergone a striking decrease during the decade 1951-61. It may be noted that in the erstwhile Trichur District there were 2,284 Jews at the time of the Census of 1951. This may be roughly taken as the population of the Jews in the present Ernakulam District in 1951 as all the traditional centres of the Jewish community fall within this District. The substantial decrease in the Jewish population may be attributed to the large scale migration of Jews to Israel during the decade 1951-61. In spite of the relatively low proportion of the Buddhists, Jains, Sikhs and Jews to the total population of the District,

their presence has tended to lend colour and variety to the population of Ernakulam. It may be mentioned that Ernakulam has the second largest Christian as well as the second largest Jain population among the Districts of Kerala. At the same time the District has the largest Buddhist Sikh and Jewish communities among the Districts of the State. The details of the distribution of population according to religion are given in the following table:—

Distribution of Population by Religion, 1961

Religion	Number			Percentage distribution		
	Total	Rural	Urban	Total	Rural	Urban
All religions	**1,859,913**	**1,464,603**	**395,310**	**100.00**	**100.00**	**100.00**
Buddhists	143	2	141	0.01	N	0.04
Christians	792,458	647,219	145,239	42.61	44.19	36.74
Hindus	854,896	674,228	100,668	45.97	46.04	45.70
Jains	993	66	927	0.05	N	0.23
Muslims	210,040	142,652	67,388	11.29	9.74	17.05
Sikhs	692	218	474	0.04	0.02	0.12
Other religions and persuasions	449	35	414	0.02	N	0.10
Religion not stated	242	183	59	0.01	0.01	0.02

N—Negligible

Considered Taluk-wise, the Christians are predominant in the rural areas of Alwaye, Moovattupuzha and Thodupuzha Taluks while in other Taluks the percentages of Hindus are higher.

Hindus

The Hindu society in this District as elsewhere in the country is organised on the basis of the age-long caste system. The exact figures of population on the basis of castes and sub-castes are not available as such information has not been collected at the recent Censuses. The Namboothiris are at the apex of the caste hierarchy in the District, though their number is not considerable. In view of their high place in this hierarchy and their matrimonial connections with the female members of the royal house of Cochin the

Namboothiris at one time occupied a high status in society. They have also been the accredited custodians of the *Vedas* and as such enjoyed several social privileges which were denied to members of the other castes. They follow the *Makkathayam* or patrilineal system of inheritance. The Namboothiris are broadly divided into two groups, viz., Vedic and non-Vedic. The great majority of the Vedic Namboothiris follow the *Rig Veda* and are themselves members of one of the two *Yogams* or Unions, viz., Trichur and Thirunavai. Among the Vedic Namboothiris are hereditary *Tantris* who are the highest temple priests and whose authority is final in all matters of temple rituals, *Vadhyans* who presided over the Namboothiri Yogams at Trichur and Thirunavai, *Vaidikans* who decided all matters relating to caste, and *Smartans* who presided over caste tribunals. *Tantris* are responsible for the proper conduct of the *Pujas* and other religious ceremonies in temples in accordance with the *Sastras*. The Namboothiris of such *Illams* as Chennos Manakkal, Chennamangalathu Manakkal, Bhadrakali Mattapally Manakkal, Uliyannoor Manakkal, Vazhaparambu Manakkal, etc., in this District are still among the leading hereditary *Tantris* in the Namboothiri community. In addition, there are Namboothiri families whose members are experts in *Mantravada* and the *Sastras* connected therewith. Suryakaladi, Kalloor, Kunnaparambu, Edappilli, Kattumadam etc., are some of the families which are even now renowned in *Mantravada*. The non-Vedic Namboothiris or *Ashtavaidyans* (the eight physicians) are believed to be the descendants of the Brahmins who were engaged in military service in olden days. They are debarred from studying the *Vedas* on account of the stigma attached to their profession which necessitates surgical operations and consequent shedding of blood.

The Elayads and Muttads form two of the high castes among the Hindu community of the District. The former are Brahimns who suffered social degradation for having officiated as priests at the funeral rites of the Nairs. The Muttads or Mussads, as they are some times called, perform some of the duties in temples which the Ambalavasis perform but they also carry the idols (*bimbams*) when taken out in procession—a privilege denied to the Ambalavasis. The women of both the Elayad and Muttad communities have, like Namboothiri women, lived for long in isolation.

The Kshatriyas to which caste the ruler of Cochin and his house belonged form another high caste among the Hindus in this District. While their male members who are called Tampurans marry women beloning to the Nair community, their women called Tampurattis marry from among the Namboothiris and Tirumulpads.

The Ambalavasis form another distinct group of castes. Their hereditary occupation is temple service. They are mostly either degraded Brahmins or the offspring of hypergamy. The Nambiars, the Pushpakans, the Nambeesans, the Pisharotis, the Poduvals, the Warriers and the Marars belong to the Ambalavasi group and they are generally associated with service of some kind or other in temples. It is a remarkable fact that several members of these communities have distinguished themselves in the literary and cultural fields. They have produced celebrated musicians, poets, astrologers, teachers and medical practitioners. While in the past they had a preference for Sanskrit education they have taken to English education and entered the learned professions in more recent times. The Ambalavasis have, on the whole, made notable progress.

The *Paradesi* or non-indigenous Brahmins form one of the most important segments of the Hindu community. Of these the most influential are the Tamil Brahmins and the Gowda Saraswaths. By their intelligence, education and enterprise the Tamil Brahmins have all along held a dominant position in public life. They have been conspicuous in all the learned professions while a good many of them have also engaged themselves in trade, money-lending and agricultural pursuits. The poorer sections among them have engaged themselves in domestic service.

The Gowda Saraswaths, locally called Konkanis, are immigrants from Goa, the southernmost part of Konkan.[1] They are also known as "Sasastikars" as it is believed that

1 It may be mentioned here that though the Gowda Saraswaths came to Cochin from Goa, they claim for themselves a North Indian origin. It is said that the Saraswaths of Goa were Aryan immigrants domiciled in Konkandesh from the North, i. e., Gowda Pradesh. The Saraswaths prefix the word 'Gowda' to their name as they believe that they belonged to one of the five classes of Northern Brahmins (Pancha Gowdas). According to tradition a Great Flood in ancient times forced the Aryans inhabiting the Saraswathi region of the Punjab to leave their home and migrate to the distant Thrihotrapura of the State of Magadha, now the Tirhut Division of Bihar. From here they later migrated to Goa for permanent settlement. Vide the Article on "*The Saraswath in History*" by N. Purushothama Mallayya in *the Golden Jubilee and Building Souvenir* (1962-63), Samyukta Gowda Saraswath Sabha, Madras.

they belonged to Sasasti (modern Salsete) in Goa.[1] They came to Cochin in the 16th century to escape from religious persecution at the hands of the Portuguese in Goa. They speak Konkani and are found in Mattancherri, Palluruthi, Ernakulam, Thrippunithura, North Parur, Vaipin Island, Chennamangalam, etc. They are Vaishnavites being followers of Madhvacharya and have rich and well-endowed temples in this District, the Thirumala Devaswam temples in Mattancherri and Ernakulam being the most important. The Gowda Saraswaths strictly follow certain customs and manners prescribed in the *Vedas*, the *Brahmanas* and the *Upanishads*. The sixteen rituals of a Brahmin's life, "*Shodasakarma*", as laid down by Manu, are observed by them. Under the guidance of their spiritual leader the Swamiyar of Kasi Mutt Samsthan they are running not only their religious shrines but also several cultural and educational institutions. The Namboothiris and Tamil Brahmins do not treat the Gowda Saraswath Brahmins as their equals. Hence they do not inter-dine or inter-marry with them. The Gowda Saraswaths are by occupation mostly businessmen, traders and shop-keepers. The Shenoys, the Prabhus and the Pais have for long held their own in the business and commercial life of the District. Like other communities, the Gowda Saraswaths have also in recent times taken to the learned professions and callings. In short, they form on the whole a prosperous community in the District.

In addition to the Gowda Saraswaths, there are the Embrans who are Brahmin immigrants from South Canara. They are treated almost on a footing of equality by the Namboothiris. The Embrans were employed mainly as priests in temples. Their language is Tulu. There are also a few Telugu and Marathi Brahmins in the District, though their number is not considerable.

Among the non-Brahmin Paradesi communities the Vaniyas deserve special mention. They are Konkani Vaisyas who wear the sacred thread and resemble the Gowda Saraswath Brahmins in their customs. They may be distinguished from the Chakkans, the oil pressers from Tamil country, who also wear the sacred thread. The

1 Even today there is a plot of land in Mattancherri called "Sasasti Parambu" to commemorate the fact that the Saraswaths of Cochin belonged originally to Sasasti. In this plot of land stands an old temple of Damodari, a Kuladevata. In Goa too Damodari is widely worshipped and there is a Kuladevata Saraswath temple in Salsete.

Vaniyas are an important community in Mattancherri and have a temple of their own, viz., the Janardhana Devaswom. Most of them are petty traders, though there are some good gold and silver workers among them.

Mention may also be made of the Kudumi Chettis who are the domestic servants of Gowda Saraswath Brahmins. While the Vaniyans are Konkani Vaisyas, the Kudumi Chetties are Konkani Sudras. The Kudumi Chettis are among the most illiterate classes of the population and are noted for their capacity for hard and sustained manual work. They are employed in all kinds of unskilled labour. They have been particularly useful as headload workers, porters and boatmen. The Vaniyas have their priests who are called Panditans, while Konkani priests officiate for the Kudumis.

In addition to the castes and communities mentioned above, there are also the influential Nairs and Ezhavas in this District. As in other Districts of the State, they form one of the most important Hindu castes in Ernakulam too. At one time a martial people, the Nairs have since the turn of the 19th century given up their traditional occupation of fighting and taken to agriculture, government service and the learned professions. Their association with the Cochin royal family through matrimonial alliances had given to the Nairs a high standing in the social scale and a pre-eminent position in the public services. Till a few decades ago there were several sub-castes among them, but the system of sub-castes has now become extinct and the Nairs have become almost a homogeneous community. The Ezhavas of this District, as elsewhere in Kerala, have also followed the traditional occupation of coconut-growing and toddy-drawing. However, in recent times the community has made commendable progress. Its members have progressively given up their traditional occupation and taken to the learned professions, government service and industrial pursuits.

In addition to the Nairs and Ezhavas, there are the Kammalas who are themselves divided into a number of endogamous sub-castes, such as Marasari (carpenter), Kallasari (mason), Moosari (brazier), Karuvan (blacksmith), Thattan (goldsmith) and Tholkollan (leather worker). The Valans and the Arayans are the most numerous of the castes whose hereditary occupation is fishing

combined with boat service. Above all, there are the miscellaneous castes such as the Kaniyans, (professional astrologers), Panans (exorcists), Veluthedans (washermen), Pulluvans (singers in serpent groves), etc. who follow some particular occupation or other. It may be mentioned here that the Pazhur Kaniyans (Moovattupuzha Taluk) are well known throughout Kerala for their predictions in astrology and all classes of people approach them for aid in predictions[1].

SCHEDULED CASTES AND TRIBES

The Scheduled Castes and Tribes form an important part of the Hindu community. According to the Census of 1961 the figures for Scheduled Castes and Scheduled Tribes in the Ernakulam District are 150,624 (74,862 males and 75,762 females) and 10,030 (5,104 males and 4,926 females) respectively. The most important of the Scheduled Castes are the Pulayas (115,110), Vettuvans (2,386), Ulladans (1,517), Kanakkans (5,282), Velans (8,955), Paravas (2,644), and Parayas (11,391). They are seen in almost all places in the District. But the Velans and Parayans are found mainly in Udumbannur, Kanjar, Arakulam, Velliamattam, Thodupuzha and Karumkulam villages. The most important of the Scheduled Tribes are the Mala Arayans, (6,474), Mala Ulladans (427), Uralis (2,111) and Mannans (469). They are found mainly in Thodupuzha, Moovattupuzha, Cochin and Kanayannur Taluks. In addition, there are also the Muthuvans, though their number is insignificant. A Taluk-wise statement of the distribution of Scheduled Castes and Tribes according to the 1961 Census is given in the Table on the next page. While Malayalam is commonly used by almost all the Scheduled Castes and Tribes, some of them (eg. the Mannans) speak dialects which contain a large admixture of Tamil words.

1 According to tradition the Kaniyans of Pazhur, a place about 18 mile east of Ernakulam, are the descendants of the union between a renowned Brahmin astrologer by name Thalakkaleth Bhattathiripad and a Kaniya woman of Pazhur. The former who by an accident happened to spend a night with the Kaniya woman in her house became an outcaste and thereafter he lived the rest of his days with her as his wife. She bore him several sons whom in course of time the Bhattathiripad educated in the profession of astrology and secured for them a place of honour in the Hindu social system as astrologers (Ganikans). It is said that on his death the body of the Brahmin astrologer was placed in a coffin and buried in the courtyard of the house. On this burial spot which is still shown stands a raised platform with a thatched roof over it and a lighted lamp is kept there always. It is in front of this lamp that the Pazhur Kaniyans still make their predictions.

Taluk-wise figures of Scheduled Castes and Scheduled Tribes, 1961

District/ Taluk		Scheduled Castes			Scheduled Tribes		
		Persons	Males	Females	Persons	Males	Females
Ernakulam District	**Total**	**150,624**	**74,862**	**75,762**	**10,030**	**5,104**	**4,926**
	Rural	**134,962**	**66,929**	**68,033**	**9,551**	**4,882**	**4,669**
	Urban	**15,662**	**7,933**	**7,729**	**479**	**222**	**257**
Parur		21,469	10,624	10,845	31	18	13
Alwaye		20,385	10,128	10,257	8	3	5
Kunnathunad		26,216	12,946	13,270	7	5	2
Kanayannur		35,433	17,711	17,722	85	38	47
Cochin		19,151	9,492	9,659	446	203	243
Moovattupuzha		20,438	10,196	10,242	157	79	78
Thodupuzha		7,532	3,765	3,767	9,296	4,758	4,538

Most of the Scheduled Tribes are still primitive and continue to be nomadic agriculturists. They have all along preferred to live in the less inhabited parts of the country where the absence of competition gave them freedom and room to carry on shifting cultivation. As migrations from one place to another were frequent, their dwelling places were only temporary structures made of jungle-wood posts, reeds and bamboos. With the opening up of communications in recent times the hill tribes have come into contact with the people of low country. Frequent access to the plains, the contact with low country men and the influence of markets have undermined their primitive clan system. The new civilizing influences at work have made them adopt the use of tools and implements and some of them like the Mala Arayans have taken to a more stable mode of cultivation. The habit of drinking and addiction to opium are widely prevalent. Their natural improvidence and easy indulgence have increased their indebtedness to local-money lenders; even though some of them would have paid by way of interest (mostly in produces like cardamom) many times more than the capital. In recent years the Hill Tribes are making considerable progress thanks to the labours of the Harijan Welfare Department. A short account of each of the important Scheduled Tribes of the District is given below.

Mala Arayans

They are seen in such places as Edappilli, Kodayathur and Thodupuzha. Arayan seems to be a modified form of *Arasan* and the name of the tribe may therefore mean

king of the *Mala* (hill). The Mala Arayans claim themselves to be the progeny of a *Rishi* by name Gauthama and his wife Ahalya who was turned into a rock by her husband on being found in the company of Indra under suspicious circumstances. Sri Rama is believed to have reunited her with Gauthama in the course of his sojourns. The Mala Arayans are of medium height and their colour varies from light to very dark brown. Both sexes among them use rings and ear rings while the females use gold *Thakas* in their dilated ear-lobes, bangles and nose rings. They take non-vegetarian food and alcohol freely. Their language is a corrupt form of Malayalam. Among the Mala Arayans women have equality of status and are permitted to own property. Their law of inheritance is now *Makkathayam* or the patrilineal system. Those of the Mala Arayans who live in the reserve forest areas subsist mainly on the pepper they cultivate and by collecting minor forest produce for contractors. Some of the families who live in the rural areas are in very affluent circumstances. They own and cultivate large holdings and use domestic utensils, furniture etc. They have the institution of the headman formerly known as *Peramban* or *Kani*. The *Mantravadi* or magician is also a popular figure among them and he plays the role of the *Pujari* and the Doctor (Medicine man). The Mala Arayans profess Hinduism and worship such deities as Durga, Bhagavathi etc. Worship of the spirits of ancestors and demons is also common among them. Polygamy is popular among the Mala Arayans. Cases of desertion and divorce are also common, but divorced and deserted women are permitted to remarry. Sororate and levirate marriages are practised. The Mala Arayans bury the dead after the corpse is washed, covered with new cloth and smeared with holy ashes. On the Sivarathri night they make offerings for the departed souls.

Mannans

The Mannans are found in the forests of Thodupuzha Taluk. They are of average height with their colour varying from very light to very dark brown. Both men and women use rings. The Mannathies (women) wear blouses and coloured saris and tattoo their noses and foreheads. Their dialect is a mixture of Malayalam and Tamil. They are generally non-vegetarians and are addicted to alcohol. The Mannans have their own clans and strict

rules are laid down to govern their social behaviour. Though *Marumakkathayam* was at one time the popular rule of succession, the patrilineal system has come into vogue. The Mannans live in thatched one-room huts where a corner is reserved as the kitchen-cum-sitting room. In areas infested by elephants they sleep on tree huts. Agriculture is the main occupation of the Mannans. Many among them laso collect and sell minor hill produce like honey. They have the institution of the *Kani* or *Kanikaran* (headman). He is assisted by the *Mantri* (first assistant) who is also respected and obeyed. Every year the huts of the headman and his assistant are thatched by the community. The *Mantravadi* (magician) is also an important figure in the Mannan community, and he is consulted for curing ailments. Being Hindus the Mannans worship Hindu gods and goddesses. Monogamy is the general rule among them. However, there are many cases of desertion and divorce. The Mannans bury the dead in a solemn manner in deep graves far away from their abode.

Mala Ulladans

The Mala Ulladans are found mainly in the Thodupuzha Range. The name Ulladan is the combination of the words *Ul* (interior) and *Nadu* (country) and indicates that the *Ulladans* are the people of the interior. Their colour varies from light brown to dark brown. Both sexes wear rings, bangles and ear rings. They have their own clannish divisions among them. Both men and women dance and sing to the tune of flutes and drums. Communal dances known as *Talavattam* and *Kolukali* are popular among them. The patrilineal system of succession is gradually replacing the matrilineal system among the *Ulladans*. They are mainly engaged in cultivation and farm labour. The vast majority among them subsist by food gathering and hunting. The women-folk specialise themselves in making mats and baskets for sale, while the males also collect medicinal herbs for the same purpose. The *Ulladans* are adepts in witch-craft and black magic. They worship devils and spirits of ancestors. Their favourite deities are Chaki, Kottiya and Ayya. Their headman is known as Mootu Kari. He is an important figure at marriages and funerals. His services are also requisitioned for exorcising those possessed of spirits. Marriage by purchase is popular among the Ulladans. A small amount is

usually paid as bride price. Divorce is rare among them. The Mala Ulladans bury their dead in far off graves in a solemn manner. Funerals take place at night and the greatest secrecy is maintained.

Uralis

The Uralis are found mainly in the Thodupuzha and Moovattupuzha Taluks. Pathippalli and Naliyani in Thodupuzha and Neriamangalam in Moovattupuzha are places where they are found. Their name is derived from the words *Ur* (land) and *Al* (people) and denotes that they are children of the soil. There are several stories about their origin. According to one legend they were brought to Kerala by a king of Madurai who visited Neriamangalam. Another legend states that they were the vassals of the Chief Nedittu Tampuran who ruled over Arakulam and Thodupuzha Ranges. Their complexion varies from dark to very light brown. Both sexes wear rings and ear rings while the women wear nose rings, blouses and saris. Their mother-tongue is a dialect of Tamil and Malayalam. The Uralis at one time followed the *Marumakkathayam* system, but there has been a change in recent years and the *Makkathayam* system has come into vogue. They live in the deep forests in settlements of four to six huts. The structure on the ground is made of bamboo, reeds and branches and is used during the day, while the stronger part is on the top of the tree with a ladder leading to it. The latter is used as the sleeping apartment in the night to escape from the scourge of elephants. The Uralis collect honey and cardamom and exchange them for their requirements. In recent years they have taken to cultivation and farm labour. Marriage by exchange is popular among the Uralis. This means that if a man has no sister to give he cannot get a wife. Marriages by purchase or capture and between members of related clans are forbidden. Polygamy is popular among the Uralis. Cases of matriarchal and fraternal polyandry are also reported. Sororate and levirate marriages are permitted. The headman among them is called *Kani* or *Velan* and the office is hereditary. He is also expected to be conversant with various forms of black magic. The Uralis bury the dead and erect a shed over the grave.

Hindu Religious Beliefs and Practices

The general religious beliefs and practices of the Hindu community in the District are similar to those of their

counterparts in other parts of Kerala or India as a whole. They are the result of a gradual process of fusion of Aryan and Dravidian ideas. Serpent worship and ancestor worship which are common among the Hindus of Kerala are widely prevalent in this District also. The *Sarpakavu* or serpent grove was at one time an essential adjunct of every Namboothiri house, but the number of *Sarpakavus* has decreased considerably in recent times in the wake of the advance of civilisation. The Pampumekkat Mana near Mala in the Trichur District and Mannarsala near Haripad in the Alleppey District attract even today large number of devotees from among the Hindus of Ernakulam. Like serpent worship, ancestor-worship is also an old custom of the Hindus. Deceased ancestors are looked upon as the benefactors of the *Tarawad* and they are worshipped with due rites and ceremonies. The Vavu Bali performed on New Moon days, particularly on the New Moon day in Karkatakom (July-August), is an important custom connected with ancestor worship.

The major deities worshipped by the Hindu community are Siva, Vishnu, Bhagavathi, Subramonia, Sastha and Ganapathi, while the minor deities are Mariamman, Bhadrakali, Hanuman, etc. The more important of the Siva temples of the District are located at Ernakulam, Alwaye, Thiruvaloor, Uliyannur, Udayamperur, Pazhur, Thrikkariyur, Thirumaradi and Chennamangalam. The temples dedicated to Vishnu may be seen at Thrippunithura, Thrikkakara and Mattancherri. The special feature of the temple at Thrikkakara is that the deity here is Vishnu in the form of Vamana. The Gowda Saraswaths who are Vaishnavites have temples dedicated to Vishnu in Ernakulam, Mattancherri, Palluruthi, Thrippunithura, Cherai, Chennamangalam etc. The more important of the Krishna temples are located in such places as Ravipuram (Ernakulam), Thodupuzha, Vellarappilli, Cheranellur, Kannankulangara and Chennamangalam. The Bhagavathi temples are located at such places as Ernakulam (Valanjambalam), Chottanikkara, Vellarappilli, Onakkur, Mattancherri, Nayarambalam, Puthenkavu, Kallil, Iringole and Karikode. Temples dedicated to Subramonia may be seen at Elangunnapuzha, Vyttila and Ponnurunni. While Ganapathi has been installed as a minor deity in almost all temples, there are temples dedicated exclusively to this diety at Kanayannur and Thodupuzha. There

is a temple dedicated to Bhadrakali at Arayankavu, about 16 miles south-east of Ernakulam. There are temples of Sastha at Karikode, Vazhakulam, Ambalamukal, Perumbavur and Arakulam. At the same time Sastha is accommodated as a minor deity in most temples. Ernakulam town has a temple dedicated to Mariamman as well as another dedicated to Hanuman, the Monkey-God. There is a temple of Goddess Saraswathi (Mookambika) in Parur. As temples dedicated to Saraswathi are rare, the Parur temple is of particular importance. In the temple of Moozhikulam the deity installed is Lakshmana, the brother of Sri Rama. The *Nava Grahas* (Nine Planets) have been installed as minor deities in the Kunnatali Siva Temple at Chennamangalam and the Chakkankulangara Siva Temple at Thrippunithura. Thus the Hindus of the District worship a variety of Gods and Goddesses.

Temple Rites

The temples form a great unifying force in the Hindu community. The major ones are located in the best possible sites either on the top of hills or on the banks of rivers or on the seashore. The Kerala temples are constructed mainly of wood and stone, necessitating periodical repair or renovation. The temple architecture of Kerala is fundamentally different from what it is in other parts of India. The temples are also noted for their sanctity and purity. The worshippers usually take bath before going inside the temple for worship. The worship in the temples is prescribed by the *Agamas* and the *Tantras*. The number of *pujas* performed every day varies from one to five. The *puja* is performed by the priest (*Tantri* or *Santhikaran*) and accompanied by the offering of water, flowers, sandal, incense, camphor etc. The priest alone touches the idol or enters the *Garbhagriha* (*sanctum sanctorum*) in the temple. *Prasada* consisting of sandal paste, flowers etc., is offered to the worshippers from outside the *Sreekovil*. The devotees offer *Vazhipadus* which consist of *Archanas*, *Nivedyams*, lighting etc. The *Kanikka* or the depositing of coins is a common practice in the temples. All major temples have their annual *Utsavams* when special services and processions are conducted and various temple arts like *Kathakali*, *Ottamthullal*, *Patakom* etc. are displayed. The temples of the District are open to all Hindus irrespective of caste. Village life is in many ways centred around the temple and the

people are associated with it at various levels. Every temple has a tradition and story of its consecration by some great saint. It may also be noted as a special feature of temple worship in Kerala that a person who visits the temple of Siva or Krishna has no objection to worshipping other Gods and Goddesses. Religious life here is free from sectarianism. Moreover, Kerala art as a whole owes its origin and development to the temples. Music, dancing, painting, architecture and sculpture are all closely associated with the temples.

Fasts and Festivals

The chief religious observances and customs of the Hindus may be briefly summed up. The devout Hindus observe fast on *Shashti*, *Ekadasi*, *Pradosham*, Full Moon and New Moon days. *Shashti*, viz., the sixth day of the fortnight, is sacred to Subramonia and a fast is observed on this day by those who wish for issues. *Ekadasi* is sacred to Vishnu and *Pradosham* to Siva. A fast in honour of the Goddess Parvathi is observed on Full Moon days. The New Moon (Amavasi) day is sacred to the manes of departed ancestors. It is also customary on the part of the Hindus to observe a partial fast in the night on certain days of the week like Monday, Thursday, Saturday etc. The Hindu Calendar contains several festival days also. The festival known as *Ashtami Rohini* is celebrated in the month of *Chingam* (August-September) to commemorate the birth of Krishna. On the day devotees throng to the Krishna temples where special religious services and cultural programmes are held. *Navaratri* which falls in the month of *Kanni* (September-October) is also an important festival of the District. The Vijayadasami day is considered auspicious for the beginning of children's education—*Vidyarambham*. *Deepavali*, which falls in the month of *Thulam* (October-November), is also celebrated here, but the festivities associated with it in the Trivandrum District are missing in Ernakulam. *Thrikarthika* is another Hindu festival. It falls in the month of *Vrischikam* (November-December) and one important feature of it is the grand display of lights in every Hindu house in the evening. *Thye Pooyam*, the festival which falls on the asterism of *Pooyam* in *Makaram* (January-February), is sacred to Subramonia and special offerings are made in all Siva temples and in those dedicated to Subramonia. It is a common spectacle on



ATHAPPOOVU



KAIKOTTIKALI

this day to see devotees carrying *Kavadis* on their shoulders and trekking their way to Subramonia temples. *Sivaratri* is also a grand festival in this District where there are a number of Siva temples. A large concourse of devotees from all parts of the State assemble at Alwaye on the banks of the Periyar on the *Sivaratri* night in *Kumbham* (February-March).

The traditional festivals of the District are, however, Onam, Vishu and Thiruvathira. Onam is celebrated on a more impressive scale in this District than anywhere else in Kerala. Till recently it was largely a Hindu affair, but in recent years Onam has become almost a national festival of all Keralites, irrespective of caste or creed. It falls in the month of *Chingam* (August-September) and coincides with the beginning of the harvest. The legend behind Onam is that Mahabali, the legendary king who ruled over Kerala and who was pushed down to the infernal regions by Vishnu in the form of Vamana, is allowed to return to the earth once a year. Vamana is the presiding deity in the temple of Thrikkakara (Kanayannur Taluk), and on the day prior to Onam, the images of Thrikkakara Appan are installed in every Hindu home. But the festival actually commences on the day of *Atham* asterism and reaches its climax on Thiruonam day, ten days later. During these days it is a common spectacle to see children going around and collecting the choicest flowers to decorate the front portion of the premises of their houses. The flowers are arranged in artistic designs and patterns which vary from day to day. Like Christmas, Onam provides an occasion for family-get-together not only for the Malayalees living inside Kerala but also for those living in other parts of the country. The heads of rich families present clothes (*onapudava*) to the junior members, servants, and tenants in connection with the festival and the tenants return the compliment in many ways. On the Thiruonam day a grand feast is held in every Hindu home. An important item in the feast is the boiled *Nentrapazhom* or banana, a plantain fruit indigenous to Kerala. Field games like foot-ball matches, personal combats, games of chess, dice and cards and dancing by females and music parties are also important items of recreation during the Onam celebration. The two highlights of the public celebrations connected with Onam in this District are the Athachamayam procession in Thrippunithura and the boat race or *Vallom Kali* in the Ernakulam Kayal.

Vishu which falls in the month of *Medom* (April-May) is the New Year day of Kerala. It is the common belief that what one sees first on the morning of the day will influence one's fortunes for the whole year. Hence what is called *Vishu Kani* is the highlight of the festival. On the night previous to the Vishu day a bell-metal bowl half-filled with raw rice, gold ornaments and coins, a *grantham*, a newly washed cloth folded, a mirror, a cumcumber, a coconut cut in two, a jack fruit and some mangoes, are neatly arranged in a conspicuous part of the house and over these are spread flowers of the Konna tree (*Cussia fistula*). The inmates rise early in the morning and look up on it as the first thing on Vishu day. This is called *Vishu Kani.* After this the heads of the families give presents in cash to junior members and servants. This is known as *Vishu Kaineettam* and children look forward to the occasion with great joy and eagerness. Display of fireworks in which children participate with great enthusiasm is an essential part of the Vishu celebration in this District. A grand feast is also held on the day.

Thiruvathira which falls in the month of *Dhanu* (December-January)is observed in this District. It is pre-eminently a women's festival and is said to commemorate the death of Kama Deva, the Cupid of Indian mythology. On the festival day the maidens of Nair families used to get out of bed in the early hours of the morning and take their bath in the tank. While taking bath they would splash water to the accompaniment of songs or *Thiruvathira-pattu.* With the gradual disappearance of tanks this custom is fast disappearing. Still the maidens make themselves merry in many other ways. They take an early bath and gaily dressed and adorned, go to the nearest temple for worship. They chew betel and redden their mouths and lips. In the day's dinner the essential ingredients are ripe plantain fruits and a delicious preparation of arrow-root powder mixed with jaggery. A peculiarity of the festival is that on this day women would not take the ordinary rice-meal but only wheat, *Chama* (*panicum miliaceum*), etc. The women folk also spend their time in swinging (*Oonjal attam*) and dancing (*Kaikottikali*).

CHRISTIANS

Next to Kottayam, Ernakulam has the largest Christian population among the Districts of Kerala. The history

of the origin and growth of Christianity in this District has already been traced in detail in Chapter II. We shall confine ourselves here to a general discussion of the organisation of the main Christian Churches and the most important social customs and manners of the community. The Christians of the District belong mainly to three denominations, viz., (1) the Latin Catholic Church, (2) the Syro-Malabar Church and (3) the Orthodox Syrian Church of Malankara. The first two of these Churches belong to the world-wide Roman Catholic Church and they owe ultimate allegiance to the Pope of Rome. His Holiness the Patriarch of Antioch is the Supreme Head of the Orthodox Syrian Church of Malankara. The Latin Catholics are under the Archbishop of Verapoly and the Syrian Catholics under the Archbishop of Ernakulam. Both these denominations profess Catholicism and do not differ in doctrines. They differ only in respect of the language in which they conduct their mass. While the former use Latin, the latter use the Syriac language.

Catholic Hierarchy

Till the 19th century both the Latin Catholics and the Syrian Catholics were under the jurisdiction of the Vicariate Apostolic of Malabar (Verapoly) which was in the hands of European Carmelites. In course of time the Syrian Catholics became discontented with Carmelite rule. Archbishop Leonard who became the Vicar Apostolic in 1868 separated the Syrian Catholics from the Latins and placed them under Bishop Marcellinis appointed Co-Adjutor for the purpose. The year 1886 marked the beginning of a new era in the history of the Catholic Church of Malabar. Changes of far-reaching importance were made in the organisational structure of the Catholic Church and these vitally affected both the Latins and the Syrians. The most outstanding event was the establishment of what is known as the 'Catholic Hierarchy.' As a preliminary to this the reigning Pope of the time, Leo XIII, concluded a Concordat with King Luis of Portugal on June 6, 1886. By this the Archbishopric of Goa was raised to the dignity of a Patriarchate and a number of dioceses were made suffragans to it. One of the suffragans to Goa was to be the Cochin Diocese. The agreement conferred anew upon the king of Portugal the old right of patronage (*Padroado*). Several of the existing Vicariates Apostolic were constituted

into regular Bishoprics and Archbishoprics. New Vicariate Apostolics were created and the whole ecclesiastical organisation was remodelled. Thus the Verapoly Vicariate was raised to be the Archdiocese of Verapoly. Its suffragan was to be the Diocese of Quilon which was raised from the status of Vicariate Apostolic to an Episcopal See.[1]

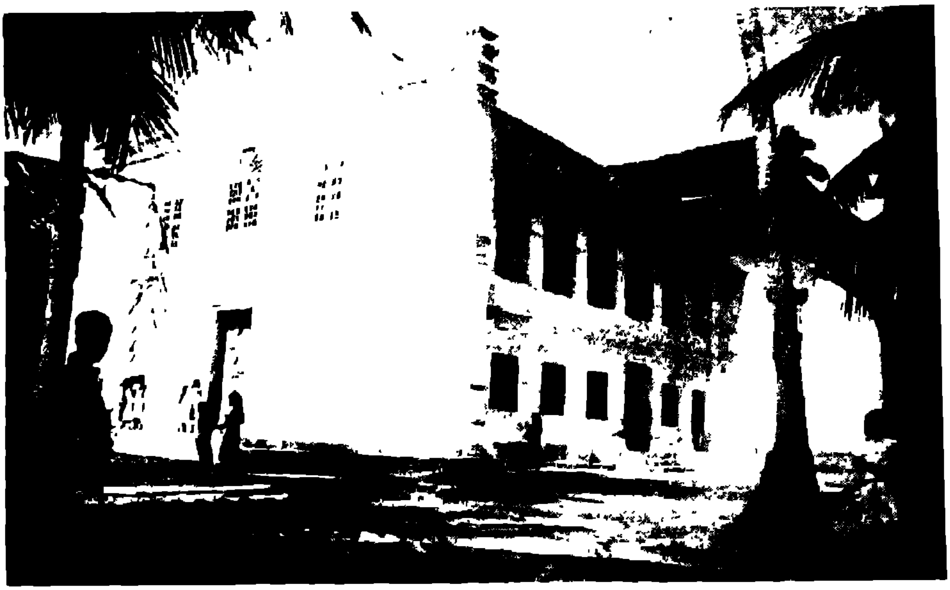
In the wake of the reorganisation of the Catholic Church the administration of the Syrian Catholics of Malabar was vested in the Archbishop of Verapoly by a special decree of Pope Leo XIII in 1887. But in the same year the Pope created two new Vicariate Apostolics (Kottayam and Trichur) for the Syrians under two Jesuit European Prelates and separated them from the jurisdiction of the Archbishop of Verapoly. In 1890 they received indigenous Prelates as Vicars Apostolic. Thus the long standing aspiration of the Syrians to have Prelates of their own rite to rule over them was fulfilled. They were, however, only Vicars Apostolic and Bishops only *ad honorem*. In 1896 Pope Leo XIII bifurcated the two Dioceses of Trichur and Kottayam and created the new Dioceses of Ernakulam and Changanacherry. In 1923 Pope Pius XI by his letter *Romani Pontifices* established a Syro-Malabar Hierarchy with Ernakulam as Archdiocese and Changanacherry, Kottayam and Trichur as suffragan Dioceses. In the year 1950 the Diocese of Changanacherry was bifurcated and the new Diocese of Palai was formed. In 1953 the Syrians of the erstwhile Malabar District were united in the new Diocese of Tellicherry which was newly created. The Syro-Malabar Hierarchy was again divided into two Provinces in 1956—one with the Archbishop of Ernakulam as Metropolitan and the Bishops of Trichur and Tellicherry and the newly formed Diocese of Kothamangalam as suffragans and the other with the Archbishop of Changanacherry as Metropolitan and the Bishops of Palai and Kottayam as suffragans.

The changes in the organisation of the Syro-Malabar Church had their impact on Latin Christians. They began to aspire to have indigenous Bishops over them, especially

1 The Diocese of Cochin which was resuscitated in 1886 did not formally belong to the Latin Hierarchy of Malabar since by the Concordat it was made suffragan to Goa. However, 34 churches taken away from Verapoly and some others from Quilon constituted the Cochin Diocese. The Portuguese right of patronage over the Cochin Diocese was abolished only in 1952 when along with the new Diocese of Alleppey it was formally included in the Latin Hierarchy.



ST. MARY'S CATHEDRAL (SYRO-MALABAR RITE) ERNAKULAM



LATIN CATHOLIC CHURCHES AT CHATHIATH (ABOVE) AND PERUMANUR (BELOW)



in the Archdiocese of Verapoly which had shifted its headquarters from Verapoly to Ernakulam in 1904. But the move for Indianisation was looked upon with strong disapproval by the European Carmelites and the Carmelite Archbishop. Nevertheless, in response to the growing demand for Indianisation which arose from the bulk of the Latin Catholic community, the Pope withdrew in 1930 the European Carmelite Missionaries to that part of the Archdiocese where the Latin rite had not made much headway and constituted it into the new Diocese called Vijayapuram, near Kottayam, with its headquarters in that town. The new Diocese was made a suffragan of the Archdiocese of Verapoly. In 1932 the Indianisation of the Archdiocese of Verapoly reached its culmination by the appointment of Rev. Fr. Joseph Attipetti as Co-Adjutor to the Archbishop of Verapoly. In December 1934 when Archbishop Angel Mary, the last of the long line of Carmelite Vicars Apostolic and Archbishops of Verapoly, retired, Dr. Joseph Attipetti assumed charge as Archbishop of Verapoly. The process of Indianisation and consequential splitting up of the Latin Dioceses now took place in quick succession. The suffragan Diocese of Quilon was bifurcated into the Dioceses of Quilon and Kottar (now in Kanyakumari District) in 1930. In 1937 the Diocese of Quilon was further divided into the Diocese of Quilon and Trivandrum. In 1952 the Diocese of Cochin was bifurcated and the new Diocese of Alleppey was constituted. The Portuguese right of patronage over the Cochin Diocese was also abolished and both the Dioceses were placed under indigenous Bishops. Besides the Dioceses mentioned above, there is also the Diocese of Calicut for the Latin Christians of the erstwhile Malabar District. This was formed as early as 1923 and is also under the Archbishop of Verapoly.

It may be mentioned in this connection that Ernakulam occupies a pivotal position in the organisation of the Latin Hierarchy of Malabar which caters to the needs of about 9 lakhs of Latin Catholics. The Archbishop of Verapoly who has his headquarters in the town has under him seven suffragans, viz., Cochin, Alleppey, Vijayapuram, Quilon, Trivandrum, Kottayam and Calicut. The vast majority of the Roman Catholic population of Ernakulam town are Latin Catholics coming directly under the Archdiocese of Verapoly. It has seven churches of the Latin rite including the Latin Cathedral. Within a radius of 8 kms. of

the town 40 per cent of the whole congregation of the Archdiocese of Verapoly lives. It is in this area as well as in the rest of the Archdiocese and in the areas of the present Cochin Diocese that the section of the ancient Christians who adopted the Latin rite are mainly found. However, as one proceeds from the coastal areas to the interior regions of the District there are more Syrians than Latin Catholics. In the Archdiocese of Ernakulam alone there are 101 Syro-Malabar Churches and in the Kothamangalam Diocese 67.

Malankara Orthodox Syrian Church

The Orthodox Syrian Church of Malankara is a continuation of that section of the Syrian Christians who refused to merge with the Roman Church and accepted the jurisdiction of the Antiochene See. Its headquarters is at Kottayam where the Catholicos of the Apostolic Throne of the East and the Head of the Orthodox Syrian Church in India and all the East lives. The history of the Orthodox Syrians, since they seceded from Romo-Syrians, was comparatively uneventful till the early years of the 19th century, when the Church Missionary Society arrived on the scene. The leaders of the Church permitted the C.M.S. Missionaries to co-operate in the work of training candidates for the ministry, producing religious literature and carrying on wider educational activities. However, in less than two decades, the arrangement came to an end on account of a breach that arose between the Church and the Missionaries. The incident created a deep cleavage in the Syrian Christian community. One group joined the Anglican Church and they are now in the Church of South India. Another group sought to reform the Syrian Church in the light of the ideas they learnt from the Missionaries. The majority of the Syrians resisted these attempts. The minority in order to get the upper hand in the conflict sent to Antioch their nominee, Deacon Mathew. The Patriarch consecrated him Metropolitan Mathew Mar Athanasius. Soon after the arrival of Mar Athanasius in Malabar, the Patriarch came to realise that he had made a mistake in consecrating him and consequently he tried to rectify it by consecrating Joseph Mar Dionysius, a nominee of the majority and excommunicating Mar Athanasius. The dispute which thus occurred between the followers of the two Metrans and in which the Missionaries took the part of Mar Athanasius was settled for the time being in 1840 by the withdrawal

of the Missionaries from all connections with the Syrian Church. The schism within the Orthodox Syrian Church, however, continued even after this settlement. Patriarch Peter III visited Kerala in 1874 and presided over a Synod at Mulanthuruthi. At this numerously attended Synod Mar Dionysius was recognised as the Metropolitan of Malankara and Mar Athanasius was condemned as a schismatic. The party which supported Mar Dionysius came to be known as the 'Patriarch or Bava Party' and those who supported reform the 'Metran's Party.' By 1887 the latter party consisting of about one-third of the total Orthodox Syrian community formed themselves into a separate Church under Mar Mathew Athanasius and assumed the title the Mar Thoma Syrian Church. But the majority continued with the Patriarch.

In the meantime, large sections of the Orthodox Syrians felt that an autonomous status was indispensable for the development of their Church and they approached the Patriarch of Antioch with the request to declare their Church a Catholicate. The Patriarch, however, turned down the request. In 1909 Patriarch Abdulla visited Malabar and demanded from each of the Bishops registered documents acknowledging his ecclesiastical supremacy. The leading Bishop, Metropolitan Geevarghese Mar Dionysius, refused to comply with the demand and the Patriarch excommunicated him. This action offended the feelings of the majority of the members of the Orthodox Syrian Church. They appealed to Mar Abdul Messiah who was himself a Patriarch senior to Abdulla but had been forced into retirement by the interference of the Turkish Government. Patriarch Abdul Messiah came down to Kerala. He declared the excommunication of Geevarghese Mar Dionysius invalid and appointed a Catholicos for the Church with the right of succession. This conflict lasted for over half a century with continuous litigation in court and faction in Church. Finally, in 1958 the Supreme Court of India gave the verdict upholding the legal rights of the Catholicate. Subsequent to the court decision His Holiness the Patriarch of Antioch, Ignatius Jacob III, issued a bull recognising the Catholicate. With this the old schism came to an end and unity was restored in the ranks of the Orthodox Syrians.

As is the case with Latin and Syrian Catholic Churches, the administration of the Orthodox Syrian Church is also

done through various Dioceses each of which has a Diocesan Bishop. There are 10 Dioceses comprised in the Orthodox Syrian Church, viz., Ankamali, Cochin, Kandanad, Chingvanam, Knanya, Malabar, Niranom, Kottayam, Thumpamon, Quilon and Diocese outside Kerala. In the Dioceses of Ankamali, Cochin and Kandanad large portions of which fall within the Ernakulam District there are 131, 79 and 130 churches respectively. Some of the important Orthodox Syrian Churches such as those of Mulanthuruthi, Piravam, Kadamattam, and Kolancherri are in this District.

Christian Religious Practices and Customs

The Christians of the District generally resemble their Hindu brothren in physical appearance and general characteristics. Their social life and customs have been deeply influenced through the ages by the society and environments in which they have lived. It is remarkable that till recently not many among them bore Indian names. Only Biblical names were borne, though such names became Indianised through long usage. Thomas, for instance, appears as *Thomman*, *Mamman* or *Umman*, Jacob as *Chacko* or *Chakkappan*, Peter, *Pathros*, or *Pathappan*, John, *Yohannan* or *Lonan*, Mathew, *Mathai* or *Mathulla*, Joseph, *Ouseph* or *Iype*, Joshwa, *Koshi* or *Easo*, Philip, *Philipose*, *Pothan* or *Punnen*, Stephen, *Punnoose*, Paul, *Poulose* or *Pylee*, Alexander, *Chandy* or *Idichandy*, Job, *Eapen*, Zacharia, *Cherian*, *Kurian* or *Kuriakose*, Geevarghese, *Varkey* or *Varid*, Mary, *Mariam* or *Mariamma*, Rebacca, *Accamma*, Susan, *Sosamma* or *Achamma*, Anna, *Annamma*, Elizabeth, *Aleyamma* and so on. However, in recent times some have discarded Biblical names and taken Sanskrit or common Indian names as the first name for children, eg:— Ravi, Raju, Madhu, Balu, etc. for boys and Asha, Rani, Valsala, Leela etc. for girls.

There have been several survivals of Hindu customs among the Christians. This was only natural because, though professing a different religion, the Christians of Kerala have lived in a land of ancient civilisation with strongly rooted customs. Tradition of the country bears evidence of the fact that the Christians also had accepted the caste system, probably from very early days. They were reckoned among the high castes along with the Nairs and their presence was sometimes required by high caste Hindus like Brahmins to purify defiled objects, for example, vessels

touched by the so-called low caste Hindus. In spite of the ban imposed by the Synod of Diamper (1599) on the custom of purification by Christians of vessels touched by members of low castes, it continued for a long time to come. Again, it is perhaps the lingering influence of the idea of caste that prohibits inter-marriages between certain sections of the Christians even today. Among other Hindu customs which have survived among the Christians may be mentioned the belief in astrology, omens, witchcraft and charms, the performance of ceremonies similar to the *Pumsavanam* and *Annaprasanam* of the Hindus, the tying of the *Minnu* or *Tali* as part of the marriage ceremony and its removal only on the death of the husband, performance of *Sradha* or annual ceremony for the soul of the dead etc. It may be made clear that none of these practices has any religious sanction behind them.

The Church plays an important part in the life of the Christians. The affairs of each Syrian Church are managed by the Vicar appointed by the Bishop and he is assisted by co-priests and a committee elected by the general body of each Parish. Great respect is shown to the priests and they are accorded a place of honour at social functions. On Sundays or at Church festivals the entire community assembles in Church and attends service at which the priest presides. The churches are generally built in prominent localities and they are distinguished by the cross that crowns the top. Some of the older churches have a large stone cross which is erected in the church compound in front of the church. The entrance to the church is usually from the west. The interior is adorned with ornamental carvings and presents an attractive appearance. The Orthodox Syrian churches have large brass lamps or *Nilavilakkus* kept inside and throughout the service each worshipper attends to the lamp pinching the wicks and replenishing the lamp with coconut oil brought by him. No crucifixes or images are found in churches other than those of the Catholics. Incense forms an important part of the church ritual. The important service on Sundays is called the *Qurbana* or *Eucharist*, but it is held oftener, if a church festival falls during the week. The sign of the cross is an essential part of Church service and it is frequently made by worshippers. The festival days which are of great importance to the Christians are Christmas or the day Jesus Christ was born and Good Friday which is locally called *Dukha Velliazhcha*

or 'Friday of Sorrow'. Good Friday is preceded by a period of fasting known as Lent. The Thursday before Good Friday is known as Maundy Thursday. Easter Day which falls on the Sunday immediately following Good Friday is a day of rejoicing as it was on this day that Christ's resurrection took place. In addition to Christmas and Easter, there are several other periodical church festivals in each locality and the people look forward to these occasions with great joy and expectation. Fridays in the week are normally observed by Christians as fast days when meat, fish, eggs and liquor are not taken. It is a strict rule of the Catholic church that their priests should remain celibate. However, among the Orthodox Syrians and Mar Thoma Syrians, the priests can marry, though the priest who is married will not be elected as a Bishop. It may be noted that this rule does not apply to the Bishops of the Church of South India. The Christians have been good sailors and boatmen and they have distinguished themselves in the annual boat festivals (*Vallomkalis*) which are held in Ernakulam and other parts of Central Kerala. Trade and agriculture have been the chief occupations of the community but they have distinguished themselves in all learned professions and industrial pursuits as well.

Muslims

In Ernakulam District the Muslims form the third largest community. They are found scattered throughout the District and do not live in numerical strength in any one particular place. Islam was introduced in Kerala in the 8th century A.D. by the Arab traders who had trade relations with the Kerala coast. The early Muslims were the offspring of the union between the Arab traders and the women of the lower classes of the Hindu population, and in the course of centuries their ranks were strengthened by conversions. The Muslims of the District are mainly the descendants or the offspring of such inter-marriages or conversions from the lower classes among Hindus. They are locally called *Jonaka Mappilas*. There are, however, a few immigrant Muslims from North-West India. The Gujarathi and Kutchi Memons and the Boras are two important immigrant sects and they live mainly in Mattancherri. Almost all the Muslims are Sunnis. Malayalam is the mother tongue of the native Muslims, while the immigrant Muslims speak Gujarathi

or Hindusthani. The Muslims have had a partiality for trade and hence they generally settled in coastal towns and in small bazaars where the prospects of trade were bright. Some of the Muslim families of Ernakulam have achieved a high degree of prosperity through the occupation of trade. In the interior areas the Muslims have engaged themselves mostly in cultivation and petty trade. A large number of Muslims are also engaged in casual labour. At one time the level of literacy among Muslims was low, but in recent decades they have taken to higher education and distinguished themselves in government service and in the learned professions.

The Muslims are generally very scrupulous in the observance of the precepts of Islam, the most important of which are the recital of the creed, the duty of alms, the five daily prayers, the *Ramzan* fast and the *Haj* or pilgrimage to Mecca. A *Maulavi* or *Musaliar* is attached to every mosque and subordinate to him is the *Mullah*. The *Kazi* is the head of the congregation and the *Kathib* or *Imam* leads in prayer. Sometimes the office of the *Kazi* is held by the *Thangal*. The *Thangals* are regarded as descendants of Muhammad, the Prophet and are consequently looked upon with a high degree of veneration. The two important festivals celebrated by the Muslims are the *Cheria Perunnal* (*Ramzan Id-ul-Fitr*) and *Valia Perunnal* (*Bakrid Id-ul-Zuha*). The former is celebrated after the conclusion of the *Ramzan* fast. The latter festival is held to commemorate Ibrahim's (Abraham) offering of Ishamael. The rich may sacrifice a he-goat or bullock during the festival and distribute it among their friends, relatives and the poor. As among the Christians of the District, there are survivals of Hindu beliefs and customs among Muslims also such as the worship of saints and the belief in magic and superstition, both of which are condemned by the *Quran*.

Minor Religious Communities

The minor religious communities of the District are the Buddhists, the Jains, the Sikhs and the Jews. The Buddhists who number only 143 are almost a recent addition to the population of Ernakulam. Their emergence is due to the neo-Buddhist movement which swept the country during the decade 1951-61. The Jains who number 993 have been a flourishing community here for some decades. They

are mostly Gujarathi immigrants from North-Western India and live in the commercial town Mattancherri, their main occupation being trade and commerce. The Jains have made their own contribution to the economic progress of Cochin. The Sikhs who number 692 are also a new addition to the population of Ernakulam. The location of the Cochin Naval Base and Defence Establishments in Willingdon Island and Fort Cochin accounts for the new Sikh element in the population of the District. There are also a few Sikhs who have come as businessmen. The growing importance of Ernakulam and Cochin in the industrial and commercial life as well as in the defence system of the country is likely to ensure for the Sikhs an abiding place in the life of the District. A Prayer Hall for the Sikhs is being built at Thevara in the southern part of Ernakulam town in order to cater to the spiritual needs of the rising Sikh population. The Jews who number 359 and constitute the fourth minor religious community of the District are an ancient community. They have lived mainly in Mattancherri, Ernakulam, Parur and Chennamangalam. In view of their long historical association with the area, a brief sketch of their history, life and culture is given below.

Jews

According to the tradition prevalent among the Cochin Jews they made their way to the Kerala coast soon after the destruction of the Second Temple of Jerusalem by the Romans in 70 A.D. They are said to have landed first at Muziris or modern Cranganore and set up a colony there. Their numbers seem to have been reinforced by fresh arrivals in subsequent centuries when, with the spread of Christianity, the Jews were subjected to very severe religious persecution. The Jews were well received by the enlightened rulers of Kerala and consequently they enjoyed a high degree of toleration. They achieved a large measure of economic prosperity, as is evidenced by the Copper Plate Charter granted to them in 1000 A. D. by King Bhaskara Ravi Varman. The Charter which is still preserved by the White Jews in their Synagogue at Mattancherri conferred valuable privileges upon the Jews.[1] The Jews led a relatively peaceful and prosperous life till the arrival of the Portuguese towards the close of the 15th century A.D. The Portuguese persecuted the Jews and compelled them to leave their

1 For details, see Chapter II

ancient settlement at Cranganore in 1565. The original Jewish colony was thus disrupted and the Jews finally scattered themselves in Mattancherri, Ernakulam, Chennamangalam, Parur and Mala (Trichur District). The Portuguese continued to harass them till their power was overthrown by the Dutch in 1663. The Dutch and the English followed a policy of toleration towards the Jews and allowed them to have free intercourse with their brothren in the West. Though the Jewish community never regained their former position of pre-eminence, they continued to live a peaceful life in their old centres. The birth of the modern Jewish State of Israel in May, 1948 thrilled the Jews of Cochin and more than 85% of them have migrated to Israel since then. Owing to such large scale migration the Jewish community of Chennamangalam and Mala has now become extinct. However, in Mattancherri, Ernakulam and Parur the Jews still live in their old colonies, though with reduced strength.

The Jews are of two classes, viz., the White and the Black. The White Jews who number 87 live in what is called the 'Jew Town' in Mattancherri. Their ancestors were migrants from Spain, Italy and other European countries. The White Jews claim that they were the first comers among the Jews and as such the only genuine Jews in Kerala. They contend that the Black Jews are the descendants of the slaves purchased by them and later converted to Judaism and set free. This view is, however, contested by the Black Jews who claim that they were the first settlers in the Kerala coast, the White Jews being much later immigrants. It is their contention that they came originally from Yemen and Babylon and never were slaves. They attribute the darkness of their complexion mainly to their long residence in the tropics. The differences between the two classes of Jews have always been acute and have even produced occassional riots and disturbances. Even now the relations between the two leave much to be desired.

The Jew Town in Mattancherri where the White Jews live has a total length of only about 200 yards. It has narrow streets, but the houses of the Jews located here are tall, two and three storeyed, high-ceilinged and spacious and they open out directly on to the Synagogue Lane—the single narrow road which is a deadend and leads to the White Jews' Synagogue. The White Jews of Cochin are handsome in appearance, with their auburn hair, fair skin

and smooth complexion. They wear a long white tunic, a waist coat over it buttoned up to the neck, loose white trousers and a small skull cap. They use wooden sandals and cultivate love-locks over their ears which distinguish them from other sections of the population. The women are also picturesquely clad in the local overlap skirt and generally put on a scarf over their heads when they are out of doors. The Jews also attach great importance to food, some kinds being regarded as unclean.

The religion of the Jews is called Judaism. The essence of their faith is summed up in the formula that Jehovah is the God of Israel and Israel is the people of Jehovah. Their religion is one of great and elaborate ceremonial as laid down in the Old Testament and the sacred book called Talmud.[1] The place of worship of the Jews is called the Synagogue. The Jews are very punctilious in the observance of their religious rites. They take particular care of their Synagogues. Whereas a Rabbi usually expounds the law, a minimum attendance of ten male adult members is necessary for a service to be conducted.[2] Any male member can read the service from the central pulpit after wearing the special white ceremonial shawl kept for the purpose. There is a separate gallery for the women-folk. One enters the Synagogue bare-footed, but the head is covered.

The White Jews have their own Calendar, the New Year beginning in October.[3] They have their own names for the months and several days are set apart for fasts and festivals. Marriages are performed after sunset on Tuesdays and Sundays only, these days alone being considered as auspicious. In certain months of the Jewish Calendar

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1 The Jews generally keep their scriptures written in skin or leather in beautifully decorated wooden cases with silver or gold coverings. The Ernakulam Black Jews' Synagogue has a gold covered wooden case with the Old Testament inside it. This is the only one of its kind in the whole world.

2 In the whole of Kerala there are eight Synagogues in all—three in Mattancherri, two in Ernakulam and one each in Parur, Chennamangalam and Mala. One of the two Black Jews' Synagogues in Ernakulam, is the biggest of its kind in Kerala. In view of the large scale migration of the Black Jews and consequent reduction in their strength the two Black Jews Synagogues at Mattancherri and those in Chennamangalam and Mala have become defunct. One of the Black Jews' Synagogues in Mattancherri is used as a go-down, though it is believed that those who do business here never prosper. The Synagogue at Mala along with the Jewish cemetery was entrusted to the Mala Panchayat as per a document executed on December 12, 1954 by the Trustees of the Synagogue in favour of the President of the Panchayat on the eve of their emigration to Israel. The White Jews Synagogue in Mattancherri, the two Black Jews' Synagogues in Ernakulam and another in Parur still function as the minimum attendance of ten male adult members is still possible in these Synagogues.

3 The year 5660 in the Jewish Calendar was 1900 in the Christian Era.



AN INSIDE VIEW OF THE WHITE JEWS' SYNAGOGUE, MATTANCHERRI

weddings are not fixed or solemnised as they are considered inauspicious. Jewish festivals like the Sabbath, Pentecost and Pass-over are strictly observed by them. On Sabbath day money will not even change hands as the Jews would not transact any business at all. The fesitval of Pentecost is celebrated in commemoration of the delivery of the law and the formation of the Covenant by which the Jews became tenants of the luxuriant soil. Pass-over which is the commencement of the religious year is the greatest of the Jewish festivals and it is also called the first Full Moon. Two other festivals are the Feast of Purim and the Feast of Lights.

The Jews have their own peculiar customs. The custom of circumcision is an extremely ancient one and it is performed by them on the 8th day when the child is also given a name from the Old Testament. The circumcisor is sometimes given a small fee and the relatives and friends are treated to a feast. The baby is adorned with silver or gold ornaments. If it dies before it is circumcised, the ceremonies are performed on the corpse before it is buried. Celibacy is unknown among the Jews and marriage is looked upon as a religious duty.[1] Marriage among them is monogamous while polyandry is unknown. Levirate which imposes an obligation on the brother of a deceased husband to marry the latter's widow has also been a widespread custom. While adultery is punished among the Jews with ostracism from the community, divorce is easy and can be effected by paying the amount specified in the marriage deed. The language of the Jews is Malayalam. Hebrew is to them what Sanskrit is to the Brahmins and only a few understand the language. While most of the Jews can read and write many among them have also taken to higher education. All boys and girls among the White Jews are highly educated. They have qualified themselves as either lawyers, doctors or engineers. Some are in government service while others have set up private practice. Though traditionally associated with the trade of money lenders and bankers, the White Jews of Cochin have demonstrated by their example that they can be proficient in other professions and callings as well. There are two very rich families among the White Jews of Cochin, viz.,

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1 It may be mentioned here that a curious problem has recently arisen among the Jews of Cochin. The young men are finding that there are not enough girls of their stock for them to marry as a result of the migration of educated boys and girls to the cities of Bombay and Calcutta, and also because some of the White Jews of Cochin have gone back to Israel.

the Koders and the Halleguas. Amongst the twelve other families living near their Synagogue in order to facilitate conduct of service and worship, some are comparatively poor and they are financially helped with the funds of the Synagogue which has an annual income of Rs. 14,000.

Customs and Manners

Some of the ceremonies among the main castes and communities, which have either become defunct or are still prevalent, may be described in this section. The *Talikettu-kalyanam*, *Tirandukuli* and *Pulikudi* were ceremonies which were at one time prevalent among the Nairs and the Ezhavas. *Talikettukalyanam* was performed for every girl before she attained puberty. The ceremony consisted of the tying of the *tali* (a small piece of gold attached to a string) round the neck of the girl by a male of the same or higher caste. The ceremony did not give the person who tied the *tali* any claim on the girl, because *Talikettukalyanam* was not a real marriage and was intended only to give the girl a marriagable status. *Tirandukuli* was celebrated in connection with the first menses of a girl. She was lodged in a separate room where a lamp was lit and a brass pot with a bunch of coconut flowers was kept. The event was proclaimed by *Kurava*. Friends and relatives visited the girl and presented her with clothes and ornaments. On the third day, they were entertained to a feast. On the fourth day the girl was anointed with oil and taken to a nearby tank where she wore the cloth specially washed for the occasion, by the *Veluthedan* or washerman. Yet another feast was conducted after the girl returned home having taken a bath along with the maidens who accompanied her. *Pulikudi* (tamarind juice drinking) was an indispensable ceremony performed for every pregnant woman by the rich and poor alike, on an auspicious day, in the ninth month of pregnancy.

Namakaranam, *Chorunu*, *Vidyarambham*, *Upanayanam* and *Sradha* are ceremonies still prevalent among the various sections of the Hindus. *Namakaranam* or naming ceremony generally falls on the 28th day after the birth of the child, but it may be celebrated on any auspicious day thereafter. The father places the child on his lap and whispers in its ear the name he proposes to give. *Chorunu* or *Annaprasanam* (rice giving) takes place in the sixth month of the child. The mother brings the child newly bathed and clothed and

places it in the lap of the *karanavan* or father. After an oblation to Ganapati the child is given rice and the curries. *Chorunu* is performed in temples also. *Vidyarambham* is gone through in the third or fifth year of the child. The auspicious day generally chosen for this is the *Vijayadasami* or *Pooja Eduppu* day. The father initiates the child into the knowledge of the letters. He takes it on his knees and writes the alphabets in rice, holding the ring finger of the child. The letters first written are "*Hari Sri Ganapathaye Namah*", an invocation to Vishnu, Lakshmi and Ganapathi. The ceremony is performed in temples also. The Sastha temple of Thiruvallakavu near Urakam in Trichur District is one of the temples where people take their children for *Vidyarambham*. *Upanayanam* is the ceremony in which a Brahmin boy is invested with the holy thread and it takes place in the seventh or eighth year. Both Malayali and non-Malayali Brahmins perform *Upanayanam*. *Sradha* is the practice of making offerings to the departed spirits of forefathers on their death anniversaries. At this ceremony cooked raw rice, plantain fruits, coconuts, etc., are served on a plantain leaf as offerings to the dead ancestors and a lamp (*Nilavilakku*) is lit in front of it. The persons who perform the ceremony also make certain invocations to the spirits of the dead ancestors who, they believe, would come and take the offerings.

Funeral Ceremonies

The people of the District, as in other parts of Kerala, have their own peculiar funeral customs. When a Hindu approaches the last moments of his life, the junior members of his family pour water or milk into his mouth. As soon as he breathes his last the relatives and friends are informed. The dead body is removed from the death bed to the central courtyard after the arrival of the relatives. The corpse is washed and marks of *bhasma* (holy ahses) and sandal paste are made on the forehead and joints. It is then covered with fresh clothes and laid on a bed of long plantain leaves. An improvised bier is used to carry the body to the cremation ground.[1] The eldest son accompanies the bier as the

1 The Hindus generally burn or cremate their dead bodies but those of small children and persons who have died of diseases like small-pox, leprosy etc., are buried. The Pisharotis are, however, an exception to the general Hindu rule of cremation. They bury their dead like *Sanyasis* in a sitting posture and fill the grave with salt and paddy. There is an interesting story about the origin of this custom among the Pisharotis. A Brahmin novice who was about to be ordained a *Sanyasi* ran away after he was divested of the holy thread but before his head was completely shaved. The Pisharotis are said to be the descendants of this Brahmin and they are thereafter being buried like *Sanyasis* in a sitting posture in memory of the incident.

chief mourner. Before setting fire to the pyre the chief mourner tears a piece from the new wrapped cloth and wears it round the waist, tucking to his waist a piece of iron, either a key or a knife. After the pyre is lit, all the mourners go to the tank to take a dip. The chief mourner carries a pot of water and goes round the pyre thrice, letting the water trickle down the holes made at the time of each round. When the third round is complete and he reaches the head of the pyre, he lets the pot on the head fall from his back on the back portion of a spade, the pot breaking into several pieces. With this the cremation ceremonies are over. On succeeding days water oblations (*udakakriya*) and rice balls are offered to the departed soul. On a day specially fixed for the purpose the mourners go to the cremation ground and collect the mortal remains. The remains are kept in an urn and buried at the foot of a jack tree to be immersed in the waters of some holy river on any convenient day in future. The cremation ceremonies last for almost a fortnight.

When a Catholic dies the corpse is well washed and neatly dressed and then placed in a decorated coffin which has in it three or four lighted candles with a crucifix between them. The parish priest offers prayers in the house of the deceased on behalf of the departed spirit. The body is then taken to the church to be buried in the cemetery and hymns are sung before it is buried. The funeral procession is grand and impressive, if the dead person is rich. Prayers from an essential part of the mourning that lasts for several days. A feast is also conducted on the seventh day.

The Muslims too have their own peculiar funeral customs. When a Muslim dies, the pillow on which his head rested is removed and his old dress is replaced. The corpse is washed in hot water and laid on the floor or on the cot on mats covered with clean cloth on which rose water is sprinkled and grains of camphor strewn. The ears, nostrils, the space between lips, the fingers and toes are stuffed with cotton. The body is fully wrapped in winding sheets. The *Mullahs* sit beside the corpse and recite passages from the *Quran*. The body is washed a second time before it is carried to the mosque. It is then placed on a bier and taken to the grave-yard within the compound of the mosque

where the burial takes place with great solemnity amidst the chanting of holy hymns. In the case of rich persons money and rice are distributed to the poor at the time of burial. A temporary shed is erected over the grave and a few *Mullahs* are engaged to read the *Quran* over it for three days, a week or forty days, according to the means of the person concerned. The *Mullahs* read the *Quran* in the house of the deceased uninterruptedly for three days. The *Maulud* ceremony is performed on the 3rd, 15th and 40th days when *Mullahs* are paid for their services and alms distributed among the poor.

When the death of a Jew is expected, some of the elders of the Synagogue are sent for. Immediately on arrival they receive the confession of the dying man. The minister reads the sacred book to the dying person and also lays a copy of it under his pillow. When the life is about to become extinct, grape juice is dropped into the mouth of the dying person. When the person is dead, the widow and the son rend their clothes and throw them against the husband's cot. The body is then covered with white sheet and both men and women sit around it and weep. If the dying person is a male, a barber shaves his head a few hours after his death and he is bathed in cold water. The body is then rubbed with coconut milk and washed twice with soap and warm water. Seven pots of water are successively poured on it and are then dashed on the floor. The body is then removed, rubbed dry, newly dressed and covered with a winding sheet. Flakes of cotton and wool are placed on the eyelids with a handkerchief over them and the face is covered by the sheet. Special clothes, a pillow, a cap and a pair of trousers are made for the grave and the body is then taken to the cemetery in the coffin brought from the Synagogue. When the body is laid to rest, Hebrew verses are recited by the assembled mourners. Each of them throws a handful of earth into the grave and then turns away. The grave is then filled and the mourners repeat the prayers. While leaving the graveyard each of them plucks a handful of grass and throws it behind his back. The mourners then retire to the deadman's house and disperse after smoking and drinking some liquor. The first seven days are observed by the family as days of mourning. A mat is spread over the spot where the man breathed his last and a lamp is placed nearby with a pot of water. The women sit, eat and sleep on the mat during day and night.

The members of the family do not either go out or sit on chairs or bathe or eat anything substantial or drink liquor during the period of mourning. The men do not wear turban or salute their friends. Every morning ten religious-minded men say special prayers in the house of the mourner. On the morning of the seventh day the minister takes the mourners to the burial ground and recites certain special prayers in honour of the dead. They then turn their backs on the grave and return home. It is customary to conduct a feast on the day for the friends and relatives who have turned up. On the anniversary day of the person's death a commemorative rite is performed along with a feast to a few members of the community.

Inter-Caste Relations

Inter-caste and inter-sub-caste relations were at one time very rigid in this District as elsewhere in Kerala. The members of the different castes and sub-castes lived in isolation from one another. Inter-dining was looked upon with horror not only by the upper caste Hindus but also by such castes as the Ezhavas in their relation to castes considered as inferior to them. The members of the so-called lower castes were not permitted to worship in temples or enter Government service. The support extended to Hindu orthodoxy by the rulers of Travancore and Cochin helped for long to maintain the *status quo*. But this state of affairs has undergone profound change in recent times and inter-caste barriers have practically broken down. The work of the Indian National Congress for the removal of untouchability, the activities of Sri Narayana Guru (1856-1928), the great social reformer of Kerala, the growth of English education and the consequent spread of liberal ideas and above all, the Temple Entry Proclamations are factors which helped to bring about this social change.

One of the prominent personalities from this District who worked actively for the break-down of caste barriers, particularly among the Ezhavas, is K. Ayyappan, popularly called 'Sahodaran'. He was one of the earliest Ezhava leaders of Ernakulam who came under the influence of Sri Narayana Guru. As early as 1917 when the caste system operated at its worst, Ayyappan founded at his native place of Cherai (Vaipin Island) an organisation called Sahodara Sanghom with the avowed objective of eradicating the evils of caste from among the Ezhavas in their

relation to castes considered inferior to them. He also organised at Cherai in the same year a *misra bhojanam* (community feast) of Ezhavas, Arayas, Pulayas etc., unmindful of opposition from conservatives elements in his own community. Ayyappan's example was followed by the Ezhavas in other places as well. In course of time, the work of the Sahodara Sanghom helped to popularise the idea of interdining among the Ezhavas and other backward classes. This had its tremendous impact on the so-called upper castes also with the result that the psychological and other barriers separating the various castes in the Hindu community gradually broke down. Inter-dining is no longer looked upon with disapproval by Hindus anywhere in the District. Inter-caste relations have on the whole registered a perceptible improvement. However, inter-marriage is yet to become popular, though the Government has been encouraging such marriages with Harijans by offering lump sum grants to deserving parties.

Religious Reform Movements

Though this District can proudly claim to have produced in the 8th century A. D. the greatest Hindu religious leader of all times in Sri Sankaracharya of Kaladi, no such leaders of undoubted eminence are associated with Ernakulam in modern times. The message of Sri Narayana Guru had had its impact on the people of this District in recent decades. One of the earliest temples founded by him is at Moothakunnam in Parur Taluk (1904). The Advaitha Asramam founded by the Guru at Alwaye in 1911 has always been a rendezvous of social workers actively interested in social reform. The Theosophical Society had also some adherents in this District and the Sankara Lodge at Ernakulam was set up as a meeting place for local Theosophists. The Ramakrishna Mission has also made its contribution to the social and religious life of the District. Swami Agamananda (1896-1961) who founded the Ramakrishna Advaitha Asramam at Kaladi in 1936 was one of the most dynamic and eloquent exponents of Vedanta and he has left his indelible mark on the religious life of modern Kerala. The Swami also laboured hard for such noble causes as eradication of caste barriers and Harijan uplift. The institution of religious discourses (*Mathaprasangams*) as part of the programme connected with the celebration of festivals (*utsavams*) in the temples of Kerala

owes its origin to his influence. Above all, by his many-sided activities at the place the Swami succeeded in putting Kaladi, the forgotten birthplace of Sankara, on the religious and cultural map of modern India. The death of Swami Agamananda in April 1961 when the Ramakrishna Advaitha Asramam at Kaladi was about to celebrate its Silver Jubilee was a great blow not only to the institution but to the Hindu community of Kerala in general.

Property and Inheritance

The most characteristic form of inheritance prevalent in Kerala was the *Marumakkathayam* or matrilineal system according to which a man's own children had no legal claim to his property and descent was traced through the sister's children. The *tarawad* property was the joint property of all the members and its management was vested in the *karanavan* or the senior male member. No member of the family could claim partition but every one was entitled to maintenance from the family property. The Kshatriyas, Ambalavasis Samantans, Nairs, Ezhavas and a few other castes followed the *Marumakkathayam* system in this District. The Cochin royal family which belonged to the Kshatriya caste followed the *Marumakkathayam* system of succession and inheritance. The Namboothiris of the District have followed the *Makkathayam* system. The eldest son inherited the family property, while the junior members were entitled to maintenance. Among the Tamil and Gowda Saraswath Brahmins inheritance is from father to son. The Kammalas have always been *Makkathayis* and women have had no share in the family property. Among the Jews the law forbade the equal division of property among all the sons of the father. The eldest son legally received a double share, as he was looked upon as the principal heir and proper representative of the family. In the absence of sons, daughters inherit their father's property, all alike. The Christians and the Muslims follow inheritance in the male line. The Hill Tribes of the District who at one time followed *Marumakkathayam* have adopted *Makkathayam* in recent times. Almost all castes and communities now follow the patrilineal system and *Marumakkathayam* has become almost an institution of academic interest.

The transition from *Marumakkathayam* to *Makkathayam* was a gradual process. The Nairs were one of the earliest to give up the system. Among them the system had given

rise to serious family disputes. The *Karanavan* was often times autocratic and treated the *Anantharavans* with lack of consideration. Under the *Marumakkathayam* system the conjugal union of a Nair female with a male sanctioned by custom was not regarded by the courts as a legal marriage and as a result there was no legal obligation on the part of the husband or father to maintain the wife and children. This too provoked the revolt of the younger generation and gave rise to constant litigation and trouble. Several legislative measures were enacted in the former Cochin and Travancore States to rectify the defects of the system. In Travancore the first Nair Act was passed in 1088 K. E. (1912) and it sanctioned half of the self-acquired property of a male to his sons and the other half to his nephews. The Travancore Government also passed the second Nair Act in 1100 K. E. (1925) providing for *Thavazhi* partition. The Act was followed by the Ezhava Act (1925) and the Nanjanad Vellala Act (1926) providing for transition from the *Marumakkathayam* to the *Makkathayam* system of succession for these *Marumakkathayam* communities also. In Cochin the Nair Regulation was passed in 1095 K. E. (1920) to regulate and amend the law of marriage, inheritance, succession etc. By the provisions of this Act the customary marriage was legalised and the wife and children were entitled to maintenance. This Act affected the Namboothiris who used to form *Sambandham* marriage with Nair females as they were also legally bound to maintain their wives and children. The powers of the *Karanavan* were also restricted. The Cochin Nair Act of 1113 (1937-38), while retaining the main provisions of the Act of 1920 introduced more progressive changes. Partition was allowed and the wife and children were declared as entitled to the properties of the deceased male. As a result of these various enactments, almost all the communities of Kerala have now become *Makkathayis*.

MARRIAGE AND MORALS

Monogamy and Polygamy

Polygamy was practised till recently by several castes and communities. The Namboothiris practised it partly because of their desire to have a son to perform funeral

rites and partly because of the desire to dispose of the superfluous number of girls. It may be mentioned that only the eldest son among them was permitted to marry from within the caste and the majority of Namboothiri girls had to remain spinsters. Precisely for this reason the Namboothiri youngsters used to consort with a number of Nair women. Among Tamil Brahmins one wife has been the common rule, though a second marriage was permitted if the first wife was sterile or incurably sick. The Kshatriyas, Ambalavasis, Nairs and Ezhavas too practised polygamy in the past. The Christians have, however, followed the rule of monogamy very strictly. Among Muslims and Jews, though polygamy is allowed, monogamy has been the general rule in recent times. Communities which practised polygamy in the past have now become monogamists. Legislation has played an important part in bringing about this consummation. The Cochin Nair Regulation of 1920 and the Travancore Nair Act of 1925 made polygamy illegal. Among other communities also polygamy was discouraged and penalised by legal enactments. Legislation provided for the maintenance of wife and children by the husband and therefore polygamy became less attractive to the higher classes while the economically backward people could not afford to maintain more than one wife. It may be mentioned in this connection that the Hindu Marriage Act of 1955 reformed the law relating to Hindu marriages all over India and has made monogamy compulsory among all classes of Hindus. The spread of English education and the consequent dissemination of progressive ideas, the reform movements and the contact with the West have also contributed not a little to the end of the practice of polygamy.

Polyandry

Polyandry was at one time common in the District among the Nairs, Ezhavas and Kammalas. It is even suggested that polyandry or promiscuity must have been the real origin of the institution of *Marumakkathayam* in Kerala. However, the custom was non-existent among the Namboothiris, the Tamil Brahmins and other Paradesi Brahmins. It was unknown among the Jews, Christians and Muslims too. In recent times polyandry has been abandoned by all communities as it is looked upon as a sign of lack of civilization.

Traditional Restrictions on Marriage Alliances

All castes and communities observe certain traditional restrictions in regard to marriage alliances. Inter-caste and inter-communal marriages have been rare and members of a particular caste or community marry only from among themselves. Nevertheless, there were a few notable exceptions. Thus, among Hindus, male members of the higher classes used to marry women belonging to the lower classes, though the reverse process, i. e., women of higher classes marrying men of the lower classes, was not practised. In many cases such castes as Namboothiris, Embrans, Pottis, Tamil Brahmins, Kshatriyas and Ambalavasis formed alliances with Nair women. Especially the younger members of the Namboothiri families entered into marriage alliances with Kshatriya or Nair women. This custom has, however, slowly died out as a result of the sufferings of the Namboothiri girls a majority of whom had to remain spinster and the growing feeling in recent times among Namboothiri youngsters that their fair sex should not suffer. In every respect there has been a significant change in the institution of marriage due to the spread of western education and the progress of urbanization. Inter-caste marriages, though not common, are not unheard of and many of the traditional restrictions on marriage based on caste are being gradually swept away by the force of public opinion and progressive legislation.

As regards inter-religious marriages, they still meet with strong opposition from the community and create serious problems in the matter of mutual adjustment. But, of late, inter-religious marriages are reported now and then. In most of these cases the male and the female have a progressive outlook. They have either studied together or lived at least as neighbours. Participation of parents, brothers, sisters and relatives is rare in inter-religious marriages. This is due not only to their innate conservatism and fear of opposition from the community, but also to a feeling that the children would become converts to their partners' faith and cease to be a source of economic support to them in future. Nevertheless, it is seen that when once the marriage takes place, reconciliation between the parties and their parents follows with efflux of time. The community also seems to approve of such marriages, especially when the couples happen to be in good position.

Apart from the restrictions based on caste and religion, there are others based on the degree of relationship between the parties. The restrictions in the case of a few castes and communities may be mentioned here. Among the Namboothiris the persons selected for marriage must be from outside the family, though from inside the caste. Persons who are related as *Sapindas* cannot marry.[1] Parties to the marriage should not also be of the same *Gotra* or *Pravara*. Marriage alliance between first cousins is seldom allowed. The same restrictions based on *Gotras* and *Pravaras* which are in vogue among Namboothiris prevail among the Tamil Brahmins also. A Brahmin's son is allowed to marry his sisters' daughter and *vice versa*. Among the Gowda Saraswaths persons who are related as *Sapindas* or who belong to the same *Gotra* or *Pravara* do not marry each other. Similarly the children of sisters, though they belong to different *Gotras*, are not allowed to inter-marry. Marriage with a paternal aunt's daughter or with a maternal uncle's daughter is allowed. The marriage with one's sister's daughter which obtains among Tamil Brahmins is not in vogue among Gowda Saraswaths. Among Nairs inter-marriages with descendants of female ancestors are prohibited. Marriages between the children of brothers and sisters take place, but neither children of sisters nor children of brothers inter-marry. Among the Nairs the marriage of a person with his sister's daughter is not permitted either. Among Christians there is no marriage between Catholics and non-Catholics. They avoid all conjugal relations among relatives and even cousins upto the fourth degree are prohibited from inter-marriage. The Muslims have no objection to marriage alliances with close relatives. The sons and daughters of brothers and sisters freely inter-marry. They often prefer alliance between a man's son and his sister's daughter and *vice versa*.

Marriage Customs and Rituals

A brief survey of the general marriage customs and rituals of some of the most important communities is alone attempted here. Among Brahmins of all classes the father of the bride selects a suitable young man whose horoscope

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1 Beginning from the bride or bridegroom and counting exclusive of both six or four degrees upward according as the relationship with the common ancestor is reached within the aforesaid degrees on both sides, the persons so related are known as *Sapindas*. *The Cochin Tribes and Castes*, Vol. II, L. K. Ananthakrishna Iyer, p. 182

agrees with that of the girl. The Kshatriyas, Ambalavasis, Nairs and Ezhavas also follow the same custom. It should be remembered that, though the parents arrange marriages, the parties concerned are also consulted before the final decision is taken and only then the date of the marriage is fixed. Marriages usually take place in the house of the bride. A recent development is that people go to temples where the marriage is conducted on payment of a nominal fee. In urban centres it is sometimes held in some convenient hall. The T. D. M. Hall in Ernakulam town owned by the local Nair Karayogam is the venue of many such marriages conducted by the Nairs. Such arrangements for the conduct of the marriage outside the bride's house help to avoid unnecessary expenditure and simplify marriage procedure. There is no change in regard to the essential formalities of the marriage, whether it is conducted in the bride's house or outside. On his arrival the bridegroom is welcomed with *Ashtamangalyam* or the eight auspicious things and his feet are washed by the bride's brother. At the auspicious hour the bride is led by her mother and the bridegroom ties the *tali* around the bride's neck and presents her with wedding clothes.[1] The couple exchange also rings and flower garlands during the function. A sumptuous feast followed by the distribution of *pansupari*, cigarettes, flowers and lemons is also a usual accompaniment of almost all marriages.

The Scheduled Tribes have many interesting ritual relating to marriage. Among the Mala Arayans the marriage ceremony is conducted at the bride's residence while those who can afford celebrate the marriage on a grand scale later at the residence of the bridegroom. *Tali* tying by the bridegroom is common among them. Eating food together from the same leaf and spitting it are essential part of the ceremony. The couple should also chew betelnut and betel leaf. At the marriage function the bride seizes an ornament or a vessel and asserts that it is her father's property. The bridegroom has to grab it from her and with this the marriage ceremony is over. Among the Muthuvans when the alliance is agreed upon, the bridegroom goes to the jungle and the bride follows him accompanied by friends and relations. The bride is asked to

1 It may be noted that among the Namboothiris the father ties the *tali* round the girl's neck while among other classes of Brahmins, Kshatriyas, Nairs etc. it is done by the bridegroom himself.

follow them only to be produced before the bridegroom, who presents her with a ring, nose-rings and a comb made by himself. After three days they begin to live together. According to an old custom the marriage among the Uralis is by exchange. Consequently, if a man has no sister to give in marriage he cannot get a wife and a man with many sisters has the unique privilege of having many wives. The bridegroom and his party visit the bride's house and give her and her parents presents before taking her away. The tying of the *tali* is the most important part of the ceremony. Run-away marriages are also very common among the Uralis.

The Christian marriage is arranged by the parents. The marriage agreements are usually concluded in the presence of the parish priests. Among all sections of Christians the marriage is solemnised in the Church. The priest conducts the marriage ceremony and blesses the union when the bride and the bridegroom join hands as a sign of mutual consent. The bridegroom ties the *tali* round the bride's neck and puts the ring on her finger. When the priest invokes the blessings of God on the married couple, followed by the holy sacrament, the marriage ceremony comes to an end. The parties pay marriage fees to the church authorities, both to the priest and the Bishop. When the bridal pair reach home they are met at the gate by the bride's sister carrying a lighted lamp and she washes the bridegroom's feet. The married couple are escorted to a specially erected pandal and prominently seated there. They are then led into the house when the bride is directed to put the right foot first as she enters. Those who attend the marriage function are treated to a feast at the residence of the bride. The bridegroom may also arrange a separate party for his friends at his own residence, when he takes the bride over there after the marriage. *Pansupari* and lemon are distributed to the assembled guests, as is done at Hindu marriages.

Among the Muslims, after the agreement is reached a date is fixed for the marriage according to the Muslim calendar. On the arrival of the bridegroom at the bride's house his feet are washed by the brother of the bride. The bridegroom and the father of the bride sit face to face and the priest recites certain Arabic verses and their Malayalam translations. After this the bridegroom ties the *tali* around

the neck of the bride helped by his sister. The bride usually does not come out of her special apartment. The invited guests are treated to a sumptuous feast and the bride goes with the bridegroom's party to his house on the marriage day itself.

Among the Jews the marriage is settled between the parents of the boy and girl. After the agreement is reached the elders assemble in the house of the bridegroom on a specified day and take decisions in regard to the arrangements for the marriage and the amount of dowry. Two days later the bridegroom's party, both males and females, meet in the house of the bride when a metal tumbler containing grape juice, a gold or silver ring and a rupee with a piece of handkerchief covering the dish is placed in a central place. The bridegroom arrives in procession at the house accompanied by two best men dressed in the best of clothes and they are well received. He stands facing the bride and puts the ring on her first finger and then gives the rupee along with the recital of a Hebrew verse. He then drops a little grape juice into her mouth. The members of the bridegroom's party are then treated to a feast. The ceremony is called *Ariyath Mehu Deseth.* On the same night the bride is bathed, dressed in white costumes and taken to the Synagogue for worship. On the wedding day the bridegroom and his best men get shaved and take bath after rubbing their heads with coconut milk. When they return home some coins are waved round the head of the bridegroom and after a light meal retire to the Synagogue for the actual marriage ceremony. The bride and bridegroom are each assigned a conspicuous place. After the evening service is over, an elderly member of the audience sings a Hebrew wedding song and the minister accompanied by the bridegroom goes to the spot where the bride is seated. The minister recites Hebrew texts and the bridegroom performs the ceremony with the silver ring and grape juice. Several prayers are sung and invocations made to the Lord. The bridegroom is seated on the right side of the bride and sugar water is handed over to all present. The bridegroom also signs the marriage covenant in the presence of two witnesses and then gives it to the bride who passes it on to her father. The assembled guests then sing a prayer song and the marriage party returns to the bride's house. The festivities connected with Jewish wedding usually last for seven days and during this period the bride

and bridegroom take their meals together. On the nigh of the seventh day they attend the Synagogue where after the performance of a ritual by the priest a devotional song is sung and the whole marriage ceremony is brought to an end.

Dowry System

Among all communities in the District the dowry system has been prevalent in some form or other. The Muslims, the Christians and the Namboothiris have suffered a great deal from this social evil. The parents of the bride were often forced to pay a high amount of valuable property as dowry. If the girls were to be married to educated and well-placed persons, the difficulty became all the greater. However, among many Hindu communities the share of the proposed bride in the family property is regarded by the bridegroom's party almost as dowry and matrimonial alliances are entered into without any formal agreement in regard to payment of dowry. The middle class families which do not possess much property or wealth resort to 'marriage by exchange' to surmount the difficulty. The brother or some other male member of the girl's family would marry the sister of the proposed bridegroom. According to the provisions of the Dowry Prohibition Act which came into force on July 1, 1961, giving, taking and demanding of dowry have been declared as offences punishable under law. However, legislation alone would not achieve the desired result. Public opinion has to assert itself before the evil can disappear completely.

Civil Marriage

Almost all the marriages among all communities are conducted according to the personal law of each community. Civil marriage is resorted to only when marriage under personal law becomes impossible. Usually love marriages and inter-caste or inter-religious marriages alone are registered. The Special Marriage Act came into force in 1955. The District Registrar, Ernakulam, whose office was formed only on June 1, 1962 has furnished the following statistical information regarding marriages registered by him and the Sub-Registrars during the period of one year from June 1, 1961 to May 31, 1963.

1	Marriage agreements registered by Sub-Registrars	118
2	Inter-caste marriage agreements	23

3	Marriages registered under Special Marriage Act	13
4	Inter-caste marriages under the Special Marriage Act	5

Marital Age

The old custom of pre-puberty marriage which was prevalent among certain communities is now almost dead and marriage takes place only after the girl attains puberty. In recent years there has been a rise in the marital age of men and women of all communities. Both legislation and public opinion have helped to bring about this change. The Cochin Nair Regulation of 1937-38 prohibited the marriage of females under 16 and of males under 21 years of age. Among the educated girls marriage now takes place at the age of 20 or much later. As for men they generally marry only after attaining the age of 24. The tendency among educated men is to marry as late as possible. There are many instances of men above 30 or 32 finding it difficult to get suitable match because of their hesitation to marry earlier. At the 1961 Census 62% of the males and 53% of the females were returned as "never married." The following table illustrates the position regarding the marital status of the people of the Ernakulam District in 1961.

Distribution of 1,000 Persons of each sex by Marital Status (1961 Census)

Marital status	Total	Rural	Urban
1 Males	1,000	1,000	1,000
i Never married	621	617	636
ii Married	354	356	345
iii Widowed	20	22	16
iv Divorced or separated	5	5	3
v Unspecified	N	N	N
2 Females	1,000	1,000	1,000
i Never married	532	533	527
ii Married	360	363	347
iii Widowed	93	88	114
iv Divorced or separated	15	16	12
v Unspecified	N	N	N

N—Negligible

Divorce

Divorce is not resorted to on a large scale by the people of this District, as is evidenced by the figures of divorce or separation at the Census of 1961. The report of the District Registrar, Ernakulam, shows that during the period of one year from June 1, 1962 to May 31, 1963 only 70

divorces were registered by parties in the Sub-Registry Offices of the District. This is by no means an alarming number. But instances of desertion of wives by husbands are often come across, especially among the poorer classes. In such cases no formal divorce would have been effected. The Hindu Marriage Act of 1955 permits both husband and wife to seek divorce on grounds of adultery, idiocy or lunacy. But this permission by itself would not induce parties to seek divorce as public opinion is not in favour of such a step.

Marriage of Widows

Widow marriage was till recently not allowed by some of the Hindu communities like the Brahmins, though the Nairs and Ezhavas had no objection to it. The Christians, though they prohibit divorce, permit widow marriage. Muslims and Jews also do not object to widow marriage. In recent times legislative enactments have legalised the marriage of widows. But the more orthodox Hindus do not encourage the marriage of widows. At the same time, the marriage of a widower is generally encouraged. It is seen that there are larger number of marriages among widowers than among widows. The social stigma attached to the status of a widow has stood in the way of large scale marriages among widows even in spite of enabling legislation. Nevertheless, among all communities widow marriage is becoming more common thanks to the efforts of the progressive sections of society.

Economic Dependence of Women and their Place in Society

In all communities it has been customary for women to depend on men for their maintenance. The burden of maternal duties is considered to be too heavy to impose additional liabilities on them. But this belief is being gradually shaken with passage of time. The woman now plays an important part in all fields of activity, though she continues to discharge her maternal duties and obligations too. Women of this District have acquired a considerable measure of economic independence. Female literacy is very high in the Ernakulam District and a large number of women are employed in the public services and the learned professions. The distinction of having the only woman

High Court Judge in the country goes to Ernakulam where the Kerala High Court is located. Women also dominate the teaching profession of the District to a great extent. Among the daily labourers and other wage earners too their number is considerable. In domestic service, husking and such other fields more women are employed than men. They are also active in politics. The Ernakulam Municipality had a woman as its Chairman in recent years. Some educated women even prefer to remain unmarried, earning their livelihood by their own labour.

Prostitution, Drinking and Gambling

The social evils found in other parts of the State are prevalent in this District also. Prostitution is resorted to by a few women for earning their livelihood. Drunkenness and gambling are also prevalent to some extent. Due to the vigilance of the police the incidence of crime under these heads is, however, decreasing. The Travancore-Cochin Suppression of Immoral Traffic Act (1951) and the Kerala Gambling Act (1960) are in force. The following data furnished by the District Superintendent of Police, Ernakulam, throw light on the extent of these evils.

Year	Cases of Prostitution and Immoral Traffic in Women	Cases of Drunkenness	Cases of Gambling
1958	31	141	70
1959	34	190	112
1960	12	178	92
1961	13	112	76
1962	9	116	98

HOME LIFE

Dwellings

According to the Census of 1961 the number of occupied residential houses in this District has shown an increase of 90.82 per cent during the period 1921-61 as against the State figure of 93.10 per cent. The following statement gives the number of occupied houses for the rural and urban areas at each of the Censuses from 1921 to 1961 with their decade variations.

Variation of Occupied Census Houses (1921-1961)

Census Year	Total		Rural		Urban	
	Number	Percentage decade variation	Number	Percentage decade variation	Number	Percentage decade variation
1921	157,167	..	141,768	..	15,399	..
1931	187,581	19.35	164,168	15.80	23,413	52.04
1941	221,233	17.94	193,045	17.59	28,188	20.39
1951	246,303	11.33	210,462	9.02	35,841	27.15
1961	299,908	21.76	240,914	14.47	58,994	64.60

The density of occupied houses in the rural areas per 100 sq. miles showed an increase from 16,786 in 1951 to 19,491 in 1961 while in the urban areas the density of occupied houses per sq. mile had increased from 1,004 in 1951 to 1,101 in 1961.

The following statement gives the number of persons per 1,000 occupied houses in the District for the rural and urban areas from 1921 to 1961.

Persons per 1,000 Occupied Houses (1921-1961)

Census Year	Persons per 1,000 occupied houses		
	Total	Rural	Urban
1921	5,305	5,201	6,266
1931	5,629	5,494	6,579
1941	5,769	5,607	6,882
1951	6,212	6,001	7,451
1961	6,202	6,079	6,701

The number of persons per occupied census house for each Taluk as per the 1961 Census is furnished below.

Persons per Occupied Census House by Taluks, 1961

Taluk	Persons per occupied census house		
	Total	Rural	Urban
Alwaye	6.19	6.18	6.31
Cochin	6.42	6.27	6.62
Kanayannur	6.16	6.01	6.38
Kunnathunad	5.82	5.82	5.75
Moovattupuzha	5.89	5.85	6.36
Parur	6.38	6.38	6.45
Thodupuzha	5.94	5.94	..

The District average exceeds six inmates per house. Cochin Taluk has the largest number of persons per occupied census house while Kunnathunad Taluk has the lowest.

Domestic Architecture

The people of this District, as in other parts of Kerala, live in isolated homesteads. The traditional Malayali house is a quadrangular building called *Nalukettu* constructed in accordance with the principles of *Tachu Sastra* (Science of Architecture). The choice of site was made in accordance with these principles and the foundation stone for the house proposed to be built was laid at an auspicious time fixed in consultation with an astrologer. The house was built to face the rising sun. It looked like a fortress with its high compound of mud and masonry. The *Nalukettu* was built particularly with a view to providing accommodation to the very large number of inmates who comprised the old *tarawads* under the *Marumakkathayam* system. Some of them could accommodate as many as 150 or 200 inmates. The building itself consisted of four blocks with a square or oblong court-yard in the centre called the *Nadumuttam*. There were verandahs all around the building and also around the court-yard. Usually the entrance to the house was through a gate house (*padippura*). A cattle shed was also constructed near the main building. A wooden granary was an inseparable complement of all old houses. By the side of or in front of the kitchen was the well. All kinds of cultivation were also common in the big compound in which the house stood. The houses were built of laterite plastered with *chunam*, and the roofs were tiled or thatched with coconut leaves.

The traditional *Nalukettu* described above is now almost a thing of the past, though specimens of it may still be seen in the rural areas. Under the impact of modern civilization the style of domestic architecture has changed. The modern houses are intended to accommodate single families and there have, therefore, been significant changes in the design, lay-out and architecture of residential buildings. Building materials such as iron, steel, bricks, cement, tiles, asbestos sheets etc. are now used extensively in house construction. The new terraced or tiled bungalows have replaced the old *Nalukettus*. It may, however, be noted that the houses of the very poor are still built of mud, white-washed or coloured red and the roofs are thatched with plaited coconut leaves or straw. Instead of mud walls wooden planks or bamboo mats are also sometimes used.

Ernakulam District is on the threshold of a revolution in the field of domestic architecture. The District is passing through an exciting phase of industrial expansion and there has been in recent years a steady influx of people into Ernakulam town and suburbs from all parts of the State and the country. The housing problem has, therefore, become rather acute. The population of Ernakulam town which exceeds one lakh and shows signs of daily increase is squeezed in about 16,000 residential houses. The expansion of housing facilities has not kept pace with the growth of population. At the same time, the land value has been shooting up and making it difficult for the common man to purchase sites and build his own house. A new phenomenon in Ernakulam is the rise of multi-storeyed buildings constructed with all modern amenities such as drainage, sanitation and protected water supply. One need not be surprised if, within a decade or two, the system of residential flats, which now exists only in big cities like Bombay, Calcutta and Delhi and is unfamiliar to Kerala, comes into vogue in Ernakulam as a solution for the housing problem.

Furniture and Decorations

Furniture and decorations add to the beauty and comfort of a house. In the traditional Malayali house screwpine mats, coir mats, wooden bins for storing grain, wick lamps, betel boxes, brass pots, copper vessels etc., were used. The Malayali way of life was so simple that even for meals a person used to sit cross-legged on the floor and eat from a plate or plantain leaf. The dining tables were practically unknown. But in recent times the items of furniture have increased in number and variety and the style of domestic decorations has also changed. Chairs, benches, cots, shelves, tea-poys, settees, sofas, almirahs, radio sets, etc., are now commonly seen in the houses of almost all upper and middle class people. The dining table has almost become an indispensable item of domestic furniture. Chairs, settees, tea-poys and other items of furniture made of wood and rattan are peculiar to this part of the country, but those made of steel are increasingly coming into vogue. A coir mat is laid at the door step of every house to enable those who get in to dust their feet. The doors and windows of houses are provided with attractive curtains. Embroidered and artistically bordered cushions are kept on the settees. Art curios made of ivory,

plastic and wood, flower-pots and ash-trays are kept in the drawing room. Brass lamps and kerosene lights have now been replaced by electric lights, though the *Nilavilakku* (wick lamp) is still lit in every Hindu home at dusk. Stainless steel utensils and ceramic crockery are fast replacing the old brass pots and copper vessels in the upper and middle class families.

Dress

Each caste and community has its traditional form of dress. The men generally wear almost the same kind of dress, irrespective of caste or community, though there are slight variations in certain respects. The common male dress is a piece of white cloth (*mundu*), two to two and a half yards in length and a yard and a half in breadth, which is worn round the loins. Most of the communities who wear the *mundu* tuck it inside on the right side of the waist, while Muslims often do so on the left. The *mundu* must touch the ground or very nearly so. But it is a common sight to see men folding up the *mundu* from below up to the knees and tucking it up at the front almost in the middle to allow free movements for the legs and also to prevent the cloth from getting wet during heavy rains. The traditional undergarment has been the *Konam* or *Koupinam*, which is a vertical strip of cloth passed between the thighs, the ends being attached to a string round the loins both at the back and at the front. A small upper garment (*torthu*) is also worn while at home and on special occasions a second cloth of better texture (*pavumundu*), somewhat longer and broader, is worn over the upper part of the body. The shirt has been popular among the urban and sophisticated sections for a long time and it is worn, while going out to public places or to attend festive occasions.

The peculiar modes of dressing prevalent among men in certain communities may also be mentioned here. On religious occasions the Namboothiris, Elayads, etc., resort to *Thattudukkal* which consists of a long piece of cloth tied round the loins with a portion of it passed between the thighs and tucked in at the front and behind with a front portion arranged in a number of duplications. Among the ordinary classes of Muslims the men wear round their loins a white *mundu* with a border and kept in position by a *Nool* or waist string to which are attached some pieces of gold or silver metals containing texts of the *Quran* or magic

yantrams. They also wear a small linen skull cap on the head. The Black Jews wear a small loin cloth with a shirt and skull cap like the Muslims. The traditional dress of the White Jews, while going to the Synagogue, is a long tunic of rich colour with a waistcoat over it buttoned up to the neck, full white trousers, a skull cap and sometimes, a turban. At home they wear a coloured loin cloth, a shirt and a skull cap. Most of the White Jews, however, appear in Western costumes in public.

The women have also their distinctive forms of dress. The Hindu and Christian women have generally preferred white clothes and their dress has been characterised by extreme elegance and simplicity. The women of the Nair, Ambalavasi, Kshatriya and some other Hindu communities wear an undercloth called *Onnaramundu*, a large piece of cloth wound tightly round the loins and then round the legs separately and tucked in at the back and on the right side. Over this is worn an outer garment (*mundu*) which is usually two and half yards in length and a yard and a half in breadth. The upper part of the body is usually covered by the bodice and the blouse. While going out a longer cloth of finer texture is worn over the shoulders covering the upper part of the body. The orthodox Namboothiri woman who is called *Antharjanam* (one who is inside) dresses in a peculiar style. A long white cloth is fastened round the loins, a portion of it passing between the legs and reaching well below the knee and also covering the breast. While inside the house, they leave the upper part of the body exposed, but when going out they cover themselves up with a long piece of cloth, leaving only the head and feet uncovered. One end of the cloth is held up in the hand, which also holds a large concave palm leaf umbrella, so as to screen the face and the body from men's eyes. The dress of the Tamil Brahmin women consists of the blouse and the *pudava* which is a coloured cloth, nine yards in length and a yard and a half in breadth. Three or four folds of the cloth are held together on the left side of the loins, while the rest of it is passed between the legs, to be tucked up behind rather tightly and the remaining portion after passing twice or round the loin is carried over the right shoulder after covering the breast. The dress of the Gowda Saraswath women consists of a mere sari reaching the ankles and the usual blouse. The traditional dress of the Christian women is a white garment,

seven yards long and one or one and a quarter broad and it is worn folded with a number of fringes behind, but the end is not passed through the legs and tucked up behind as the Nair women do. The upper part of the body is covered by the jacket. The dress of the ordinary Muslim woman is a dark blue cloth reaching from the waist to the ankles and a loose jacket of thick white cloth with long sleeves. They also wear a small cloth thrown over the head and falling over the shoulders. The richer classes also use almost the same dress, though there may be differences in materials and colours. The Jewish women use a red coloured loin cloth and a jacket to cover the upper part of their body. The former is fastened round by a gold or silver belt from which a bunch of keys is sometimes suspended. They cover their heads with a veil which falls over the shoulders as low as their waist. The White Jewesses are generally seen in Western costumes too.

Though the traditional forms of dress described aboves are still prevalent among middle aged or old men and women in all castes and communities there, has been considerable change in sartorial fashions in recent years among the younger generation. The pants and the bush shirt or slack shirt have become popular among educated young men, particularly the white-collar workers and college students. The educated young women, irrespective of caste or community, have given up the old ways of dressing and adopted the general type of dressing prevalent in other parts of the country. This is particularly so when they appear in public places or attend festive occasions. Thus the use of saris is now common among all young women. Jumpers, cholies, blouses and jackets of many a fashionable design are in common use among them as upper garments and the petticoat and brassiers as under garments. It is, however, seen that, as they grow older, many of them revert to the traditional forms of dress. There are also different patterns of hair dressing prevalent among the womenfolk. It is the normal practice to comb the hair and tie it behind in a knot. At the same time plaited tails and pony tails are two attractive styles of hair dressing in vogue among young women. Artificial hairs, hair nets and rings are also used by them to put up the hair in different styles.

Ornaments

Ornaments of different kinds have been in use among all castes and communities in this District. The oldest

ornament of the Nair lady was the *Nagapatam* or serpent's hood, so called from the shape of the pendant. In addition, there was the ear ornament called *Thoda*, a double convex disc, for the wearing of which the earlobes were dilated. An ornament for the nose called *Mukkuthi* was also worn. Among the ornaments for the neck the most important were the *Addiyal*, *Yanthram*, *Poothali*, *Avil mala* and *Pulinakham*. The *Kappu* was the ornament worn on the wrist. Rings of all kinds were worn on the fingers. The Namboothiri women never wore any costly ornaments. They wore rings on fingers, and a peculiar kind of necklace called *Cherutali* which was worn loose over the breast. The Tamil Brahmin women were never sparing in the use of ornaments. They had ornaments for almost every part of the body—the head, nose, ear, neck, arms, fingers, wrist and feet. The *Kasumala* was a garland of coins worn by them round the neck. The *Oddiyanam* was a silver or gold girdle, an inch or an inch and a half in breadth, with a hook in front, while the *Kolusu* was a silver ornament of elaborate workmanship worn round the legs. The Jewish women have also been accustomed to wearing various kinds of gold necklaces some of which were made of Venitian sequins. The traditional Christian women bore their ears in several places and wore a kind of heavy gilt brass ring *Mekka Mothiram* at the top of each ear. Their ear lobes were sufficiently dilated to accommodate a U shaped ornament at the time of wedding. They had the necklet called *Ottezhapattak*, *Kombu*, *Thala*, *Nazhi* etc., rings of various kinds for fingers and anklets. The Muslim women have been accustomed to wearing an incredibly large number of ornaments. They wore five or six kinds of ornaments each on the neck and waist. They had also bracelets, armlets and bangles made of gold. As for the ears, as many as ten to fourteen holes were bored in each and a long string of ornaments of artistic workmanship was suspended through it.

Not all the traditional ornaments described above are now in use among the various castes and communities, though some of them are still used by the more conservative and less literate sections of the female population. In fact, most of the old types of ornaments are now only heard being talked about and are not seen in regular use. The old *Thoda* has now definitely been replaced by the modern *Kammal*. The educated and progressive sections among



SYRIAN CHRISTIAN BRIDE IN ANCIENT WEDDING APPAREL AND ORNAMENTS

women are not much enamoured of gold jewellery now-a-days. They consider it crude and primitive to load their persons with gold ornaments on an extravagant scale. The modern tendency is to limit the use of gold ornaments to the absolute minimum. The young women of today are contented with the use of a pair of gold studs or *kammals* for the ear, a simple elegant gold ornament for the neck and a pair or two of gold bangles for the hands. On festive occasions they still use more than one necklace and for this purpose ornaments of special and attractive designs are made and kept in reserve. The Gold Control Rules (1963) and the stipulation that the gold content of ornaments should not exceed 14 carats have taken away from the yellow metal much of its fascination. Ornaments made of plastic, artificial gold, beads, etc., are becoming increasingly popular in recent times among the more sophisticated sections.

Food

Rice, boiled and served hot, is the staple food of all classes of people in the District. There is no substantial difference in the dietary habits prevalent among various castes and communities except that some are vegetarians or others non-vegetarians. The Namboothiris, the Kshatriyas and the Ambalavasis have been strict vegetarians and they take no animal food. The Nairs, Ezhavas, etc., are not regular vegetarians or non-vegetarians and they take both vegetarian and non-vegetarian food according to convenience or habit. The Christians and Muslims have been definitely non-vegetarians. Both of them eat fish and meat.

The routine dietary in a middle class family consists of bed tea or coffee, breakfast, lunch, tiffin, and supper. The 'bed tea' or 'bed coffee' is taken by the elderly members of the family at about 6 or 6.30 a. m. They take their bath and have their breakfast between 8 and 9 a. m. The breakfast consists of beverages like tea or coffee, and dishes like *Dosa*, *Idli*, *Uppumavu*, etc. The old system of taking *Kanji* or rice gruel with some pickles or *pappadam* for breakfast is not now in vogue except among families of the low income group. The mid-day meal or lunch is an elaborate affair and it consists of boiled rice together with a few curries (vegetable, fish or meat) and butter milk mixed with rice is taken as the last course. Pickles made of mango,

lemon, etc., are almost an indispensable item for the meals. That coconut and coconut oil are used freely in all culinary preparations is also a feature of the Malayali food. Grains such as pulse, black, green and Bengal gram and dhal are also used in the daily meals. The tiffin in the afternoon consists of tea or coffee and some edible or other. The supper which is taken around 8 o' clock in the night consists of boiled rice and some of the items as are served for lunch. Those who can afford also take a cup of milk before going to bed.

Amusements and Festivities

The District is noted for a large number of amusements and festivities. The *Utsavams* or festivals conducted in temples stand out as the most spectacular of such festivities. The *Utsavam* is a big event in the social and religious life of the people and all kinds of pastimes and entertainments are held in the temples during the season. The most important of the temple pastimes are *Kathakali*, *Koothu*, *Koodiyattam Patakam*, *Harikatha*, *Ottam thullal*, *Korathi Attam*, *Geetham*, *Panchavadyam*, *Parisha Vadyams*, *Chendamelam*, *Thayambaka* and *Nagaswaramelam*. *Kathakali* is a form of dance-drama depicting *puranic* stories. The peculiarity of the play is that the actors do not speak. They merely act dialogic sections called *padams* through appropriate symbols (*Mudras*) and facial expressions as the songs are sung by singers from behind. *Koothu* is a performance in which a single actor, viz., the Chakiar expounds *puranic* stories. His exposition is characterised by wit, humour and sarcasm. It is performed in temples within *Koothambalams* specially built for the purpose. In *Koodiyattam* two or more actors appear on the stage at the same time as in modern dramas. The Chakiars take the part of the male characters and the Nangiars (female members of the Nambiar family) those of the female characters. *Patakam* is a simpler form of *Koothu* in which a single actor expounds *puranic* stories. *Harikatha* performance has in recent times taken the place of *Patakam* which is fast dying out for want of sufficient encouragement. The former has more musical overtones than the latter and hence more popular. *Ottam thullal* is a sort of dance-drama in which one actor, adorning the costumes as in *Kathakali*, narrates puranic stories in poetical form with *mrudangam* and *jalara* accompaniments. The facial features and gestures are similar to those in *Kathakali* and *Koothu* except in that the actor hops and dances, wherever necessary,

while narrating the story. The author of the poetical form of the stories for *Ottam thullal* is said to be Kunjan Nambiar who lived in the 18th century. *Korathi Attam* is a sort of gipsy dance. Though by origin it may have been a play in which the women were the sole participants, the dancers today are usually men in the make-up of women, impersonating the consorts of Vishnu and Siva. They dance to the tune of music, vocal and instrumental and enact a dialogue, vying with each other in narrating the virtues of their respective lords. *Geetham* is the practice of singing devotional songs before the deity in important temples to the accompaniment of *Edakka*, which is considered as a *Deva Vadyam*. Verses of *Ashtapadi* (Jayadeva's *Geetha Govindam*) are usually sung along with compositions of Dikshitar, Swathi Thirunal and others. *Panchavadyams* or the five instruments (*Maddalam*, *Timila*, *Edakka*, *Sankhu* and *Talam*) are usually played at the time of the *Deepa-radhana* in temples and during processions. They are played particularly during the big *Utsavams* in temples in order to provide entertainment to the spectators. In *Panchavadyam* there is a synchronisation of sound emanating from all the five instruments in varying pitches. One *avarthana* lasts for hours, with climaxes and anti-climaxes. *Panchavadyam* is supposed to infuse *panchaprana* and *pancha-bhootha* into the deity. It is commonly believed that those who are present in the Vaikom temple (Kottayam District) on the night of the tenth day of the *Utsavam*, when *Pancha-vadyam* is usually played by experts, will be free from all sins and even the Devas from heaven descend to the earth to enjoy the programme. *Parisha Vadyams* are those intended for the *Upadevatas* such as *Dwarapalaks*, *Digpalaks* and *Bhoo-taganas*. *Chendamelam* is supposed to express the all powerful nature of the Supreme Lord and is usually played in connection with all temple festivals. It may be mentioned in this connection that *Chendamelam* is resorted to by Christians also in connection with the *Perunnals* in their churches. *Thayambaka*, a classical piece of drum, is another temple *Vadya* of Kerala that thrills audiences during festivals. As in *Panchavadyam*, in *Thayambaka* also one session lasts for hours, with several climaxes and anti-climaxes. *Naga-swaramelam*, otherwise called *Pandivadyam*, is also another set of *Vadyams* prescribed for use during the main *pujas* in the temples. It is also played on such auspicious occasions as marriages.

Aksharasloka is another kind of entertainment peculiar to Kerala and to this District. It is the continuous recitation of *slokas* in relay and requires a certain level of scholastic attainment on the part of the participants. The procedure is as follows. One man recites a *sloka* and the second one starts his *sloka* with the first letter of the third line in the previous *sloka* and so on. The man who is not able to begin his *sloka* in this manner and continue the trend is eliminated. Though mainly associated with temples and religious functions, *Aksharasloka* is now being specialised as an art and competitions are held. It has been immensely popular with students who specialise in the study of Sanskrit and Malayalam.

A typical pastime or entertainment of the Christians of the District is the *Chavittunatakam* which is now almost defunct.[1] It arose as a Christian alternative to the Hindu *Kathakali*. As *Kathakali* was concerned with the presentation of Hindu stories and was staged in temples, the Christian section of the population was not enthused or benefited by it. Hence in the 17th and 18th centuries when the art of *Kathakali* was slowly evolving itself in Kerala, the leaders of the Christian church and community, assisted by foreign missionaries, evolved a new art which sought to present Biblical or Christian stories and sustain the interest of Christian audiences. This new art came to be known as *Chavittunatakam*. It had its debut at Mattancherri where two Christian scholars from Tamilnad by name Chinnatampi Pillai and Vedanayakam Pillai contributed to its development in the early stages. Though evolved as an alternative to *Kathakali*, the *Chavittunatakam* was modelled more after the European Opera than after *Kathakali*. If in *Kathakali* the actor impresses the audience with suitable gestures or *mudras* made by the hand, the actor in *Chavittunatakam* acts and stamps on the stage with his feet to the tune of songs and the beating of drums. It is because stamping and acting form the most essential features of the art that it has come to be called *Chavittunatakam* (*Chavittu* means stamping with the feet and *Natakam* drama). It is also nicknamed *Thattupolippan* (Platform-breaker) after the unusually loud noise, not very pleasant to the ears, produced by continuous stamping by the actors on the specially improvised wooden platform on which the

1 The *Chavittunatakam* by Sebeena Raphy in Malayalam attempts a detailed study of this art. Attention is also invited to the Chapter on the subject in *Malayala Sahityavum Christianikalum* by Dr. P. J. Thomas pp. 159-170.

play is staged. It may be noted that unlike *Kathakali*, *Chavittunatakam* is not a dumb-drama. The actors in the latter both speak and sing. Music, vocal and instrumental, acting, stamping, dancing and dialogue are all equally important elements in it. The themes are drawn mainly from the lives of Christian Saints and from the history of Christianity. One of the most popular stories presented by *Chavittunatakam* troupes was that of the career and achievements of Charlemagne (768-814), the great Holy Roman Emperor. This art which was at one time popular among the Christians has languished and almost become extinct owing to want of proper encouragement. Still there are one or two *Chavittunatakam* troupes in this District even now.

Apart from the religious and quasi-religious pastimes and festivities described above, there are some which are more secular in character. *Panthukali* or *Thalamakali*, a kind of native foot-ball, is an out-door game. *Kuttiyum kolum* is another out-door game played with sticks by children *Kaikottikali*, *Kolattam* and *Vattukali* are pastimes popular with women and girls. Swinging on *Oonjal* is a favourite pastime indulged in by the Nair women during the Thiruvathira season. A kind of folk-dance has been prevalent among the Muslim community in Moovattupuzha Taluk. It is called *Arbana Mutt*. But the art has receded into background in recent times as it has ceased to interest even its patrons. Only men participate in this folk dance.

Mention may also be made in this connection of the *Vallom kali* or boat race which is a characteristic festival of Central Kerala. The most famous of the boat festivals are held in the neighbouring Alleppey District, but Ernakulam has also its share of these festivals. A colourful boat race is held in the Ernakulam Kayal during the Onam celebration in Chingam (August-September) and it attracts mammoth crowds. Several specially decorated *Valloms* or boats participate in it. Each of them is given a name and the boat which wins the race is awarded a Trophy. The members of the Vala and Christian communities have particularly distinguished themselves in this game. There are also certain folk songs, specially composed in a particular tune called *Vanchipattu* and they are sung by the boatmen on such occasions.

Public Games and Recreation Clubs

Most of the traditional pastimes and games, religious and quasi-religious, described earlier are witnessed mainly during national festivals like *Onam* and religious festivals like *Utsavams*. The advanced and educated sections of the society have taken to modern recreations and games which owe their origin to the influence of western civilization. The cinema has now established itself everywhere as the most popular form of entertainment. According to the Census of 1961 there were 20 cinema theatres in this District of which 11 were permanent and 9 seasonal. The most important of the public games played out of doors for recreation are foot-ball, volley-ball, cricket, hockey, tennis, badminton, basket-ball, ring tennis, etc.

There are a number of sports and athletic associations in this District which are patronised by the Kerala Sports Council and are affiliated to the State Associations represented in it. The Cochin Athletic Association, Ernakulam, plays its part in encouraging amateur athletes. Ernakulam is particularly associated with Cricket and there are a number of Clubs here to patronise the game. The Thrippunithura Cricket Club, Ernakulam, the Cochin Gymkhana Club, Cochin, the Cochin United Club, Cochin, the Naval Cricket Club, Alwaye, etc., are the most important of such Clubs. Most of the factories of the District actively encourage games and sports, particularly foot-ball and they have their Sports Clubs affiliated to the Kerala Football Association. The most notable of them are the Alupuram Football Club, Alwaye, the Hindustan Insecticides Sports Club, Alwaye, the FACT Sports Club, Udyogamandal, the Indian Rare Earths Sports Club, Alwaye, etc. Clubs like the Alwaye Amateur Sports Club, Alwaye, the Ernakulam Eagles Club, Ernakulam, the Amateur Sports Club, Ernakulam, the Flying Arrows Club, Ernakulam, the Cochin Town Club, Cochin, etc. also encourage football and other out-door games. The Sea View Gymnastic Arena, Ernakulam, the City Gymnasium, Ernakulam, the Kerala Gymnasium, Ernakulam, the Ernakulam Gymnasium, Ernakulam and the Cochin Gymnasium, Mattancherri patronise Gymnastics and Yogic Culture. The location of the Cochin Naval Base and Defence Installations in the Cochin-Ernakulam area and the presence of a large number of *Jawans* interested in public games and sports have given a great fillip to such activities in the District.

There are Recreation Clubs in most of the urban centres where facilities for in-door games like cards, carroms, chess, billiards, etc., are provided. Some of them also provide facilities for certain out-door games too. The Rama Varma Union Club, Ernakulam, founded as early as 1897 is a pioneer in the field. It is centrally located in the very heart of Ernakulam town, near the junction of four important roads facing the Durbar Hall and its spacious lawns. An exclusive Men's Club, it provides facilities for such games as tennis, badminton, billiards, cards, chess, ping-pong, etc. The Lotus Club, Ernakulam is also an old institution. In the days of British rule it was perhaps "the first club in India open to Europeans and Indians, to both sexes and to all castes and creeds and their children".[1] It provides facilities for in-door and out-door games and social contacts between different classes of people. The Municipalities of the District like those of Alwaye, Perumbavur and Parur and several of the Panchayats also patronise Sports and Recreation Clubs within the limits of their respective jurisdictions. Since the commencement of the Community Development Programme there has been a remarkable expansion in the facilities provided for out-door and in-door games all over the District. Social welfare and recreation centres, sports clubs and arts clubs have sprung up in the rural and urban areas alike under the auspices of the N. E. S. Blocks in order to cater to the recreational needs of people belonging to different age groups and walks of life.

There is a special type of club known as the Merchant Navy Club to cater to the needs of the merchant navy personnel calling at Cochin. It was established in 1945 in pursuance of the desire of the then Viceroy and Governor-General of India that in every important Port entered by British and Allied Merchantships there should be institutes in which seamen could be comfortably accommodated and provided with suitable amenities. In 1949 a separate club which was run in Mattancherri was merged with the Merchant Navy Club. It is now located near the Cochin Harbour Terminus Railway Station. The Club is open to all Merchant Navy personnel visiting Cochin Port, irrespective of nationality or colour. It maintains a restaurant, a bar, a library and reading room. Facilities for in-door and out-door games are also provided.

1 *Cochin Saga*, R. C. Bristow, p. 192.

A residential annexe was opened in 1954. The management of the Club is vested in the Chairman of the Cochin Port Trust with the aid of a managing committee consisting of 5 or 6 members representing various interests.

Pilgrim Centres

The District is noted for a large number of pilgrim centres which are important to the Hindus, Christians as well as Muslims. The most important of the temples have already been mentioned in an earlier section. The places where these temples are located have developed into centres of Hindu pilgrimage. The Bhagavathi temple at Chottanikkara is visited by hundreds of Hindu devotees every day. People who are mentally unsound or insane stay here for long periods of time as the deity in this temple is believed to have the power to exorcise people possessed of spirits. The Poornathrayeesa temple, Thrippunithura and the Siva temple, Ernakulam, also attract large number of devotees from all places. There are three *Utsavams* every year in the Thrippunithura temple and each of these lasts for eight days. The most important of the three festivals is the one which falls in *Vrischigam* (November-December) and it attracts hundreds of spectators. On the *Utsavam* days the idol is taken out in procession on a row of beautifully caparisoned elephants to the accompaniment of music and tomtom, notably *Chendamelam* and *Panchavadyam*. The *Utsavam* in the Ernakulam temple which falls in *Makaram* (January-February) also attracts huge crowds. Kaladi, the birth place of Sankaracharya, has developed in recent years into another great centre of Hindu pilgrimage. Hindus from all parts of India visit this hallowed place. The Sree Sankara Jayanthi is celebrated at Kaladi on a grand scale in *Medam* (April-May) every year. Alwaye is another major centre of Hindu pilgrimage. The Sivaratri celebration held on the banks of the Periyar at Alwaye is attended by thousands of people from all parts of Kerala.

The most important centre of Christian pilgrimage is Malayattur. The Catholic church here on the top of a hill is visited by a large concourse of pilgrims on the first day following Easter in April and the place is as important to the Christians as Sabarimalai is to the Hindus. Vallarpadam is another prominent place of Christian pilgrimage and the old St. Mary's church here is visited by a large number of Christian dovotees. The Catholic churches

at Edappilli and Kannamali (Kumbalangi) are also well known centres of Christian pilgrimage. The *Kozhi Nercha* (cock offering) is an important affair in the Edappilli Church, and Christian devotees flock to the place in large numbers to make this offering. A grand vegetarian feast is held on the 19th of March every year at Kannamali in connection with the St. Joseph's Day and thousands of people participate in it. The main items of the feast are *pappadam* (round wafers made of the meal of the kidney bean), *Pazham* (plantain) and *payasam* (pudding).[1] The Mulanthuruthi and Kadamattam churches are important centres of pilgrimage for the Orthodox Syrians of the District. The Perunnal in the Cheriapalli (St. Mary's Church) in Kothamangalam which is celebrated on August 16 and 17 attracts large crowds from neighbouring places. The Mosque at Kanjiramittam (14 miles east of Ernakulam) is one of the most important centres of pilgrimage for Muslims in the District.

New Economic and Professional Classes in Relation to Social Life

The traditional feudal society of the District in which the caste status enjoyed by a person together with the size of the landed property held by him determined his standing in the social scale has now almost disappeared. Till a few decades ago the upper caste Hindus like the Brahmins, the Kshatriyas and the Nairs held a dominant position in society. The ruling Kshatriya class and the high caste Hindus patronised by them set the pace in social and cultural life and dictated even the types of food and dress that could be used by the different classes of people. The so-called low castes counted for little in the social hierarchy. But the far-reaching social and economic changes that have taken place in quick succession in recent times have transformed the traditional feudal society beyond recognition. The progress of western education and the spread of liberal ideas, the growing political consciousness among the lower classes and their increasing entry in

1 There is an interesting story behind the conduct of this annual feast. In 1905 Kannamali was in the grip of a serious outbreak of cholera and hundreds of people died daily. The villagers were so desperate that they decided to hold a community feast on March 19 in the local church and die *en masse*, if at all they should die. As if by a miracle none of the participants in the feast got the attack of cholera and the village was from that day free from this epidemic. Since then on the 19th March every year the villagers of Kannamali conduct a feast in the local church as an act of thanksgiving and in commemoration of the miracle of 1905.

Government services, the introduction of adult franchise and the dawn of democratic government, the growth of industrialisation, and the increasing pace of urbanisation have contributed to the decline of the old social order. The disruption of the traditional social institutions like the joint family, the *marumakkathayam* system etc. also set in motion several progressive social forces. The old Nair *tarawads* broke up and in their place arose the new family based on the patrilineal system of inheritance. The abolition of royalty in Cochin and Travancore in the wake of the dawn of Independence also dealt a heavy blow to the old feudal and caste interests. In the meantime, the agrarian reforms introduced by successive Governments served to take away from land much of its fascination as a source of prestige and economic investment. The increasing rights conferred on the tenants and the attempt to impose a ceiling on land under the provisions of the various legislative enactments coupled with the complexities of increased litigation have had their impact on the general attitude of people towards land. The modern tendency is to turn away from land and to take to Government jobs and learned professions, even if the income derived from the latter may not be quite sufficient for a person to lead a life of maximum comfort. In the new social order that is emerging the Government official, the lawyer, the engineer, the doctor, the teacher, etc. have come to have a definite standing of their own. At the same time, new values and incentives based on industry, trade and commerce have also come to the fore and affluent businessmen and industrialists enjoy a greater status and prestige in the public eye than the members of the old caste-ridden and landed aristocracy. This is particularly so in the Ernakulam District which stands on the threshold of a great industrial revolution. It is the new professional and economic classes who now patronise the arts which were at one time patronised by royalty and the feudal aristocracy. There are industrialists in this District who patronise *Kathakali* and the traditional arts with the same fervour with which the old feudal aristocracy did it in the past.

Special mention may be made in this connection of the great impact which the recent political, social and economic changes have had on the members of the erstwhile ruling house of Cochin. The Cochin ruling family which followed the old *marumakkathayam* system and whose members had

lived for centuries mainly on the "unearned income" derived from family property has now ceased to be what it was before. The family properties have since been partitioned and the members of the various *thavazhis* have become practically independent. While those who were alive at the time of the integration of the State with Travancore still get the personal allowances admissible to them under the Covenant, many of the younger members of the family have taken to new avocations. Some have entered Government service and the learned professions, others have started industrial enterprises and yet others have joined the defence services. Even the female members of the family who had at one time led a cloistered life have taken to higher education and some have become teachers in schools and colleges. The urge to live on one's own instead of being a parasite on others is now strong among those who were traditionally idle. The new social and economic changes have thus infused a spirit of independence and enterprise in all classes of people.

CHAPTER IV

AGRICULTURE AND IRRIGATION

Introduction

Though Ernakulam is relatively more advanced than other Districts of Kerala in the matter of industrialisation, it does not lag behind them in the agricultural sector. Agriculture still forms the chief means of livelihood of large sections of people. According to the Census of 1961 it absorbs 11.49% of the population—6.82% as cultivators and 4.67% as agricultural labourers.

Land Utilisation

Table I gives the classification of land area in the District in 1962-63.[1]

TABLE I

Classification of Land Area, 1962-63

Category	Area in acres	Percentage to the total area of the District	Percentage to the total area of the State
Total area according to Village papers	**781,381**	**100.00**	**8.29**
Forests	136,551	17.41	5.23
Land put to non-agricultural uses	47,636	6.07	9.01
Barren and uncultivable land	4,457	3.12	8.15
Permanent pastures and other grazing land	8,909	1.14	10.35
Land under miscellaneous tree crops not included in the net area sown	25,963	3.31	5.03
Cultivable waste	21,583	2.74	6.89
Fallow lands other than current fallow	4,600	0.59	4.30
Current fallow	7,942	1.01	7.32
Net area sown	506,740	64.60	10.21
Area sown more than once	54,640	6.97	5.06
Total cropped area	561,380	71.57	9.29

1 Source: Department of Statistics

Intensity of land utilisation is as high as 90%, i. e., out of 5,61,380 acres available for cultivation 506,740 acres is the net area sown. However, the intensity of cropping is only 110% as against the State average of 119%. The former is an indication of the lack of scope for extension of area under cultivation, while the latter promises scope for improving the intensity of cropping. Table II shows the Taluk-wise distribution of waste lands as per the findings of the "Cultivable Waste Land Survey" conducted by the Department of Statistics in the District in 1959-60.

TABLE II

Taluk-wise Distribution of Waste Lands, 1959-60

(Area in acres)

	Thodupuzha	Moovattupuzha	Kanayannur	Cochin	Parur	Alwaye	Kunnathunad
Total area of the Taluk	115,934	162,968	79,952	34,898	47,351	80,625	114,975
All waste lands †	12,143	18,073	8,529	856	1,305	1,204	5,840
	(10.47)	(11.09)	(10.69)	(2.45)	(2.76)	(1.49)	(5.08)
Current fallow *	1,957	9,857	43	14	196	111	206
	(16.12)	(54.45)	(0.50)	(1.63)	(15.02)	(9.22)	(3.53)
Other fallow *	2,383	828	105	2	69	154	364
	(19.62)	(4.58)	(1.23)	(0.23)	(5.29)	(12.79)	(6.23)
Cultivable waste *	4,355	5,046	8,295	8,230	300	587	4,606
	(35.86)	(27.92)	(97.26)	(96.16)	(22.98)	(48.75)	(78.87)
Uncultivable waste *	3,448	2,342	86	17	740	352	664
	(28.40)	(12.96)	(1.01)	(1.98)	(56.71)	(29.24)	(11.37)

In Ernakulam District the percentage of area under waste land to the total area was about 11% in Moovattupuzha, Thodupuzha and Kanayannur Taluks, 5% in the Kunnathunad Taluk and about 2% in Cochin, Parur and Alwaye Taluks. In the District as a whole there were 47,950 acres under waste land which accounted for about 8% of the area of the District. Nearly 50% of the area under waste lands was found to be of cultivable waste land type and 8% other fallow land. Only 16% of the waste lands were of the uncultivable type. The cultivable waste lands were mostly in Moovattupuzha, Kanayannur and Kunnathunad Taluks.

† Figures given within brackets denote the percentages to the total area of the Taluk.

* Figures given within brackets denote the percentages to the total area under 'All waste lands'.

Land Reclamation

An area of 500 acres of cultivable waste lands in Elangunnapuzha (Vaipin Island) is being reclaimed under the Rural Man Power Project sponsored by the Government of India.

Agricultural Holdings

According to the report of the All-India Agricultural Labour Enquiry on Rural Man Power and Occupational Structure conducted in 1954 in the erstwhile Travancore-Cochin State, 50.2% of the agriculture holdings were below one acre. The average size of the holdings was the lowest in Travancore-Cochin, being 2.4 acres. Again, the survey revealed some important factors with regard to agricultural owners, tenants, agricultural workers and non-agriculturists. From the sample survey it was seen that the percentages of holdings held by agricultural owners, tenants, agricultural workers and non-agriculturists were 28.7%, 12.5%, 32.8%, and 26% respectively. Most of the holdings of agricultural workers were uneconomic, their average size being 1.0 and 0.5 acres as against 3.6 and 5.9 acres for tenants and 3.6 and 5.1 acres for agricultural owners. Of the total area of the holdings, 65 per cent was owned by land holders, 34 per cent rented and one per cent held free of rent. The agricultural families held 11 per cent, 7.0 per cent being owned, 3.7 per cent rented and 0.3 per cent held free of rent. On an average there were 5.9 persons per holding, of whom 1.1 were agricultural earners. The average number of persons per holding increased with the size of holdings except for the size group "100 acres and above." The largest number of persons for holding, viz., 10.4 was in the size group 50 acres and under 100 acres. The average number of persons per holding for the group 100 acres and above came to 8.0. The average number of agricultural earners per holding was approximately one for all the size groups except for the group 100 acres and above for which it was 0.5. The above statistics for the erstwhile Travancore-Cochin area may help the reader to understand the nature of agricultural holdings in the District also. This picture as obtaining in 1954 might have undergone some change due to the impact of recent land legislation.

Mention may also be made of the findings of the census of land holdings and cultivation conducted by the Statistics Department in the old Travancore-Cochin State. It was

seen that 40% of the agricultural holdings in the erstwhile Trichur District were over one acre.[1] The size of the holdings was also generally larger than in the Districts of Trivandrum and Quilon.[2] The table at Appendix I to this Chapter shows the distribution of holdings in the erstwhile Trichur District. The table prepared from the land records gives the distribution of holdings according to size, wet land (paddy field), dry land (garden) and the total of both wet land and dry land.

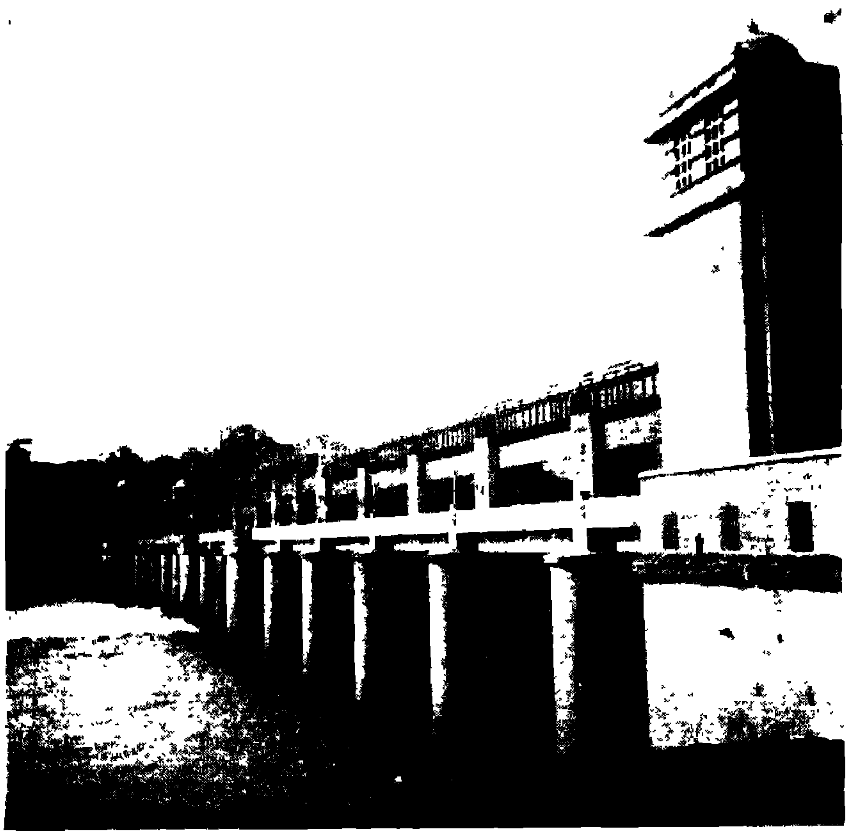
IRRIGATION

Early History

Regarding the early history of irrigation in the District, it is seen that in the erstwhile Cochin State a beginning in this line was made by the construction of embankments and drainage canals in the Vaipin Island during the time of Dewan Sankunni Menon (1860-79) rendering a large extent of land fit for cultivation of paddy or planting of coconut trees. The Ernakulam foreshore was greatly improved by extensive reclamations made from the backwater during the Dewanship of Govinda Menon (1879-89). In addition, in the tracts bordering the backwaters several artificial embankments called *Pulinchiras* were constructed at different times. In the laterite regions also, where natural facilities existed, similar bunds were put up for the storage of water by means of which thousands of acres of waste lands were converted into single crop *nilams*. A special cess was charged on all lands benefited by irrigation works constructed at the cost of Government. A large number of permanent *chiras* or embankments were constructed at different times in various parts of the country for the prevention of the ingress of salt water or for the storage of water, and temporary bunds were constructed for a similar purpose every year. The lands, the cultivation of which was facilitated or rendered possible by these works, were charged a cess, called *chiravari*, at the rate of one-tenth to one-half *para* of paddy per *para* of land according to the outlay on the *chiras* concerned. In some cases, the cess was levied at the uniform rate of 14 pies per *para*.

1 The major portion of the Ernakulam District viz., the area excluding the Taluks of Thodupuzha and Moovattupuzha and portions of Cochin and Kanayannur falls within the old Trichur District.

2 It might be relevant in this context to compare the position regarding agricultural holdings in the District with that in the State. 88% of the holdings in the State are less than 5 acres in size while 55% of the total holdings are below one acre each. Only 1.4% are above 25 acres. (vide *Farmers of India*, Vol. II I. C. A. R. (1961), p. 319



PERIYAR BARRAGE (PERIYAR VALLEY IRRIGATION PROJECT)
NEAR BHOOTHATHANKETTU

The above was the position with regard to the area of the District which formed part of the erstwhile Cochin State. However, the Travancore areas of the District did not stand in need of much elaborate or costly irrigation works on account of its heavy and unfailing rainfall. The only important irrigation works worth mentioning were some reclamation schemes. The more important of them were:— (1) the Puthenvelikkara Reclamation Scheme, (2) the Vadattur Reclamation Scheme, (3) the Munambam Reclamation Scheme, and (4) the Parur Reclamation Scheme.

With the dawn of Independence irrigation works received the special attention of the Government. The Five Year Plans have given a place of honour to activities connected with the improvement of irrigation facilities. The present sources of irrigation in the District are natural streams, channels, channel-fed and rain-fed tanks, wells, natural water reservoirs formed by constructing embankments across the line of drainage or natural streams and storage facilities provided by the various irrigation works. The existing irrigation works can be broadly divided into four heads, viz, (1) Major Irrigation Works, (2) Medium Irrigation Works, (3) Lift Irrigation Works, and (4) Minor Irrigation works.[1]

MAJOR IRRIGATION PROJECTS

Periyar Valley Irrigation Project

The Periyar Valley Irrigation project is expected to feed an ayacut of 63.300 acres falling entirely within the Ernakulam District. This is one of the biggest irrigation projects in Kerala and the biggest one in this District. The cost of the scheme is expected to reach the figure of 640 lakhs of Rupees. The project consists of a Barrage across the Periyar river at Planchode near Bhoothathankettu, which is about 8 miles north of Kothamangalam. The total length of the barrage is 692 ft. between abutment faces. It has 15 spans of which 3 are central spans of 30'

1 The nomenclature "medium irrigation works" refers to irrigation and salt water exclusion works which benefit at least an area of 200 acres of land and which cost less than Rs. 10 lakhs. Generally all medium and minor irrigation works comprise (1) small tanks and reservoirs (2) diversion regulators across small streams (3) irrigation channels and (4) salinity control works. These works are intended to serve isolated regions which do not come under the purview of major irrigation works or where there is no possibility of taking up a major irrigation works. Minor irrigation works include surface percolation wells, tanks and channels and tube wells.

each and the remaining 12 spans of 40′ each. The maximum height of road way over barrage from the still level is about 40′. The weir is of random rubble masonry hearting protected by a 6″ thick reinforced cement concrete carpet and is built to a height of 6′ for the central spans and 10′ for the end spans from the average bed level +74.00. The piers have a facing of cutstone and hearting of random rubble. Vertical lift gates with counterweights are operated by electrical winches. Over the piers there is 22′ wide roadway. The roadway provides a connection to the Anamalai Hills. The hoist equipments are mounted on an operation bridge 24 ft. above the road level.

On the left bank of the river 600 ft. upstream of the barrage, there is a natural drain falling into the river. The main canal is aligned along this drain for about 7,000 ft. The head regulator of the main canal is located at chainage 7,012 of this. The main canal is 17.5 miles long and carries a discharge of 857 cusecs at the initial reach. Several branch canals taken from the main canal and their distributories help to irrigate the lands in the Taluks of Moovattupuzha, Kunnathunad, Alwaye and Parur. Owing to the undulating nature of the area, the canals pass through deep cuttings and high fillings at several places; where very deep cutting is necessary, the canals are taken through tunnels or flumed sections.

The branches from the main canal are Kothamangalam (8.5 miles), Mulavur (9 miles), Kodanad East (12 miles), Mazhuvannur (8 miles), Perumbavur (3 miles), Rayamangalam (4 miles), Kezhakkambalam (5 miles), and Alwaye (7½ miles) irrigating a total area of 61,460 acres of land. The total cost of construction of these canals is estimated at 422 lakhs of Rupees.

These branches again divide themselves into several distributories, major and minor, of which Vadavukode distributory and Kolancherri distributory from Kizhakkambalam branch and Edappilli distributory and Parur distributory from Alwaye branch are the major ones. The Parur branch crosses the Periyar and its flood plains at Alwaye, the location of which is downstream side of Marthanda Varma bridge. For this crossing an R. C. open aqueduct about 8,000 ft. long has to be constructed. There is another major aqueduct at 5th mile Alwaye branch, one at 3rd mile Edappilli branch and another, a pressure

aqueduct, also at 3rd mile Edappilli branch to negotiate low paddy field areas at these places. The canals are given masonry or concrete lining in certain filling portions to prevent erosion and damages.

The execution of the project had commenced in 1956 during the Second Plan period. Even though the work was scheduled to be completed in the Second Plan period, it was not possible to do so as much of the expected progress had been retarded by bottlenecks and insufficient allocation of funds. The project, it seems, cannot be completed even by the end of the Third Plan period as sufficient funds are not allotted during this Plan period also. It was, however, partially commissioned in June 1964 and it is expected that approximately 5,000 acres will be benefited. With the completion of the project, 21,000 tons of additional paddy production can be expected annually. As the scheme envisages only the diversion of available water in the Periyar river, water cannot be supplied during the drought season, viz., from February to May, the period when the third crop can be raised. It has been decided to develop the Reserve forest on the opposite bank of the river at the Barrage site as a Tourist Centre with wild life abounding there.

Chalakudi River Diversion Scheme

The Chalakudi River Diversion scheme is another major irrigation work from which lands in the Alwaye Taluk of the District are benefited. The headworks and most part of the canal system are in Trichur District.[1] The scheme has 234 miles length of canals out of which 50 miles lie scattered in Alwaye Taluk. They irrigate about 3,237.49 hecters (8,000 acres) of *Viruppu* and *Mundakan* lands.

Medium Irrigation Works

As is the case with major irrigation works, the District has not many medium irrigation works either. The report supplied by the Executive Engineer (Irrigation), Ernakulam, shows that there is an important medium irrigation work in the District, viz., improvement to Chakkarachal Bund at Chellanam. This will irrigate an area of 2,000 acres of land. Another medium irrigation work

1 For details of the scheme see *Trichur District Gazetteer* pp. 252-53

in the District which is under the control of the Executive Engineer, (Irrigation), Chalakudi, is the Manappattu *Chira*. This is an earthern dam of about 1,000 feet length 40 feet height and 12 feet top width. This work irrigates an area of 390 acres (157.83 hecters) for *Viruppu* and *Mundakan* crops. The construction of the dam was done years back and the exact expenditure is not known. A sum of Rs. 70,000 was spent for recent improvements to the *Chira*

Lift Irrigation Works

There are plots of land spread all over the District which cannot be irrigated by gravity flow. Such lands are brought under cultivation by lifting water from the reaches of rivers where fresh water is available or from fresh water lakes or ponds. Lift irrigation forms an essential part of the pattern of irrigation works in the District. There are a large number of such schemes, the maximum number being in the Taluks of Kunnathunad, Parur and Alwaye. During the period 1949-1963 a total number of 57 Lift Irrigation Works benefiting an area exceeding 15,000 acres of land were completed in this District. The crops irrigated comprise *Mundakan* and *Punja*.

Minor Irrigation Works

Generally minor irrigation works are indigenous works which the Government have taken over, improved and maintained. They include small tanks, and storage reservoirs. Their importance is not often recognised because they are scattered all over the countryside and are not spectacular like the huge reservoir or anicut systems. But their value as a protection factor against crop failure is inestimable. No separate capital and revenue accounts are maintained for these works. There are 160 such works taken up in the District since the formation of the Ernakulam Division of the Irrigation Branch of the P. W. D. in 1958. They command an area of 7,669 acres. The area irrigated came to 7,575 acres in 1963. There are 41 such works in the District under the control of the Chalakudi Irrigation Division. Of these 33 are in Alwaye Taluk and the rest in Parur Taluk. They command as well as irrigate an area of about 2,531 acres.

Area under Irrigation

According to the Season and Crop Report, Ernakulam had 1,66,813 acres and 1,67,584 acres as net irrigated areas

in 1957-58 and 1958-59 respectively. These figures represented 19.61% and 19.07% of the net area irrigated in the State and 36% and 36.01% of the net area sown in the District. Table III shows the sources of water supply and area irrigated (in acres) in 1957-58 and 1958-59.

TABLE III

Sources of Water Supply and Area Irrigated

	Source	Area irrigated (in acres) 1957-58	1958-59
	Total	**166,813**	**167,584**
1	Canals		
	Government	69,506	70,170
	Private	28,171	28,171
2	Tanks	14,275	14,350
3	Wells	16,280	16,307
4	Others	38,581	38,586

Table IV shows the area in acres of crops irrigated in the District in 1957-58 and 1958-59.

TABLE IV

Irrigated Area under different Crops

	Crop	Area irrigated (in acres) 1957-58	1958-59
	Total	**202,881**	**203,545**
1	Rice[1]	155,675	156,339
2	Other food crops (cereals, millets, pulses, sugarcane etc.)	36,904	36,904
3	Non-food crops	10,302	10,302

Soil Conservation

Soil Conservation aims at the complete control and prevention of Soil Erosion from the cultivated agricultural lands. The steeper the slope, the greater is the loss due to soil erosion and therefore the problem varies from locality to locality. During the Second Five Year Plan period two Soil Conservation Schemes were initiated and implemented in Ernakulam District. The first scheme was for 422 acres in Marady village of Moovattupuzha Taluk at a cost of nearly Rs. 35,000. The second one covered

1 This figure includes area irrigated more than once under autumn, winter and summer crops.

an area of nearly 700 acres in the Mulavoor village of the same Taluk and the expenditure incurred on it amounted to Rs. 77,525.

During the Third Plan, four schemes have been initiated. The first scheme is in Paipra Village of Moovattupuzha Taluk for 614 acres at an estimated cost of nearly Rs. 1,38,000. The second scheme relates to the construction of permanent ring bunds in a selected area of about 715 acres in Kakkanad Kari lands. The object of this pilot scheme is to attempt the conversion of single-crop paddy lands into double-crop areas to study whether the entire area under Kari lands could be brought under double-cropping. This is mostly an engineering work and the estimated cost is nearly Rs. 8,59,000. In addition to the above schemes that are in progress in accordance with the provisions of T. C. Land Development Act 1950, two other schemes for nearly 967 acres and 540 acres respectively have been prepared and the preliminary investigations completed. These areas are located in Eranalloor and Randarkara villages respectively in Moovattupuzha Taluk and may cost approximately Rs. 2,25,000.

Water Potential and Schemes for further exploitation

According to the data collected by the authors of the Master Plan, there are still some possibilities of exploiting the water potential of the District.[1]

Periyar Basin

The most important scheme under execution in the basin is the Periyar River Valley scheme, the details of which have already been given. The other is the Edamala scheme. The Edamala river is an important tributary of the Periyar. By means of a right bank channel taken

1 In November 1957 the Government of Kerala appointed a special staff under the Chief Engineer, General and Irrigation, to investigate the water resources of the State and to prepare a Master Plan for their utilisation. A small Advisory Committee consisting of the Chairman, Kerala State Electricity Board, the Chief Engineer, Kerala State Electricity Board, Chief Engineer, Irrigation, the Superintending Engineer, Water Resources Circle and the Investigation Division Officer for the Electricity Board, was constituted to scrutinise the Plan. The Master Plan which took shape covers all possible schemes for the utilisation of the river waters of Kerala. It envisages a total outlay of Rs. 500 crores split up into two phases, the first phase from 1961-1971 costing Rupees 210 crores and the second from 1971 to 1991 costing Rs. 290 crores. The report on the Plan was published in 1958 as a book under the title "*Water Resources of Kerala: An Advance Report*". The details of the schemes proposed for the Ernakulam District can be had from pages 141-157 of the book.

off from the Edamala dam proposed for hydro-electric purpose, it would be possible to cultivate about 6,000 acres of land lying on the northern side of the Periyar river and the western side of the Edamala river. The cost of the scheme is estimated at Rs. 20 lakhs. In addition, regulators for irrigation and salinity control are also proposed. Flood banks to the tune of Rs. 40 lakhs are also suggested.

Moovattupuzha River Basin

The river basin does not afford any facilities and favourable conditions for locating storage reservoir. Hence irrigation works can be undertaken in this basin only as the indirect benefits of the proposed Iddikki hydro-electric scheme. A pumping station 4 miles upstream of Moovattupuzha in the Thodupuzha river is suggested. The right and the left bank canals are expected to irrigate 18,300 acres of lands in Moovattupuzha, Eranalloor, Kumara, mangalam, Thirumaradi, Ramamangalam, Arakuzha-Kuthattukulam etc.

SOIL AND CROPS

On the basis of topography, vegetation, soil and climate this District can be grouped into four agricultural regions, viz., A, B, C and D for the purpose of our study. The problems in the choice of crops and cultivation practices are controlled by topography, soil and climate and are different in the various parts.

A Region

The eastern areas of the District are occupied by steep hills with intervening valleys. The soil is lateritic, rich in organic matter and nitrogen, but deficient in phosphorous, potash and lime, due to heavy leaching. Because of unwelcome topography the hills are more suited to perennial crops. The valleys are usually converted into *Nilams* where paddy is grown twice a year. The average yield of paddy is the highest for the District in this region. The entire Elamdesom, Thodupuzha, and Kothamangalam N. E. S. Blocks and the eastern half of Moovattupuzha Block come under this region.

B Region

To the west of the region the land is more or less of the same hilly type but the slopes are mild. The hills

gradually merge into the valleys. These intermediate lands known as "Mali", "Mari" etc. occupy a variety of field crops. The soil is typical laterite with its pan formation. The soils in the upper regions are gravelly. They are generally of poor fertility. The western half of Moovattupuzha N. E. S. Block, the entire Pampakuda, Koovappady, Vadavukode, Ankamali and Vazhakulam Blocks and the eastern half of Mulanthuruthi Block can be grouped under this region.

C Region

On moving further westward, the land is dotted with low flat hills suddenly dropping into paddy lands. They can be considered as table lands. Broadly, in its lay-out into hills and valleys, they are very similar to the B region in that the hills suddenly merge into the valleys without the intermediate land. The *Nilams* in the C region are low but broader than those in the A region. The soils of the table lands are completely washed off, leaving the residual soil more gravelly. The valleys are broad and consequently the paddy lands are extensive. The soil in the paddy lands is loamy sand and is deficient in organic matter. Hence the moisture retaining capacity is comparatively poor. The soils are poor especially in plant food availability. The entire Alangad and Parakkadavu Blocks and the eastern half of Edappilli Block can be grouped under this region.

D Region

The remaining area is the typical coastal region with its coconut garden lands and extensive low-lying water-logged lands where paddy alone can be grown. The soils in the garden lands are sandy while in the low-lying paddy lands they are clayey. The choice of crops in this region is limitted to coconut and paddy. Parur, Vaipin, Palluruthi and Vyttila Blocks and the western halves of Edappilli and Mulanthuruthi Blocks fall under this region.

Major and Subsidiary Crops

Rice, Coconut, Lemongrass, Rubber, Pepper, Ginger, Mango, Cashewnut etc. are the most important agricultural products of the District. The details of the crops grown showing the acreage of each crop

and its percentage to the total cropped area in the case of the more important ones are given in Table V.

TABLE V

Area under Crops, 1962-63

Crop	Area in acres	Percentage to total cropped area
Rice (Autumn, Winter and Summer)	206,536	36.8
Ragi	132	
Other cereals and millets	841	
Total pulses (Tur and others)	4,894	0.9
Sugarcane	1,130	0.2
Other sugar crops	486	
Pepper	16,821	3.0
Ginger	2,860	0.5
Turmeric	939	
Cardamom	2,574	0.5
Betelnuts	11,334	2.0
Other condiments and spices	5,091	
Mangoes	18,877	3.4
Banana (including Plantains)	5,050	0.9
Other fresh fruits	19,430	3.5
Cashewnuts	16,561	3.0
Tapioca	32,148	5.7
Sweet Potatoes	1,819	
Onions	244	
Other fruits and vegetables	4,139	
Castor	68	
Sesamum	2,410	0.4
Coconuts	111,074	19.8
Other oil seeds	4,872	
Tea	391	
Coffee	395	
Rubber	45,775	8.2
Fodder crops	534	
Green manure crops	201	
Other non-food crops	43,754	

Table VI shows the total out-turn of principal crops in the District for the year ending 30th June, 1963.

TABLE—VI

Total Out-turn of Important Crops for the year ending 30th June, 1963

	crops	1962-63
1	Rice	105,377 Tons
2	Ragi	54 „
3	Other cereals and millets	150 „
4	Pulses	729 „
5	Sugarcane	1,689 „
6	Pepper	1,997 „
7	Ginger	1,210 „
8	Turmeric	335 „
9	Cardamom	47 „
10	Betel nuts	680 Million nuts
11	Banana	4,979 Tons
12	Other Plantains	10,140 „
13	Cashewnuts	7,393 „
14	Tapioca	88,979 „
15	Sesamum	286 „
16	Coconuts	275 Million nuts
17	Tea	54 Tons
18	Coffee	39 „
19	Rubber	2,903 „
20	Lemongrass oil	860,691 Bottles

MODE OF CULTIVATION OF PRINCIPAL CROPS

Paddy (Nellu)

Paddy (*Oryza Sativa* Linn)is the crop that occupies the largest extent of the total cropped area in this District. Three crops of paddy are raised annually depending on the availability of irrigation facilities. The first crop *Viruppu* is grown from April to October. The second called *Mundakan* is obtained between August and February. The third crop viz., *Punja* is of minor importance and it is cultivated between January and June. An area of about 90,000 acres each comes under *Viruppu* and *Mundakan* while the area under *Punja* comes approximately to 1,300 acres.

The first crop *Viruppu* is sown under dry condition and subsequently treated as wet crop with the outbreak of the monsoon. With the pre-monsoon showers the land is prepared by ploughing and the paddy seeds are dibbled behind the plough or sown broadcast and covered by ploughing and planking. The practice is to apply organic

manures such as cattle manure or compost and phosphate manures etc. Bonemeal is generally broadcast by hand over the field and the land ploughed. When the plants are about one month old, weeding is done and another dose of nitrogenous fertiliser is applied. This crop is harvested during August-October.

The second crop *Mundakan* is transplanted during August-September months. The usual practice is that, as soon as the first crop is harvested, the land is ploughed six to eight times and green manure, ash or compost manure is applied. Bonemeal is also used as basal dressing and when transplanting is done. After the first dressing,top dressing with Euria or ammonium sulphate is given. In certain areas sprouted seeds at the rate of 40-50 pounds are sown in the well-prepared field in which ash, cowdung, compost, green leaves, etc. are ploughed in along with the bonemeal. The harvest of this crop is in December-February.

The third crop or the *Punja* is restricted to small low-level areas where water supply is abundant during the summer months. The out-turn is usually small and the *Punja* proves costly, especially as the varieties grown yield little profit.

Pokkali Cultivation

There are some special modes of rice cultivation evolved in Kerala to suit local conditions. The Pokkali system of cultivation may be considered as peculiar to this District.

The Pokkali cultivation takes place in about 8,000 acres of land in this District. Pokkali fields are subjected to tidal action and are situated near the backwaters. No doubt some are far flung but ultimately they are connected to the backwaters. During high tide, saline water from the backwaters enters the field and during low tide, the brackish water is drained out into the backwaters either completely and suddenly or partially and slowly, depending upon the intensity of tidal action. This is the situation after harvest from October till about April when the sowing operations are to commence. Well maintained lands are put up with bunds all around. Water is let in and let out through outlets. If the bunds are strong in the normal course, the entry and exit of water can be controlled.

Before the onset of the first showers by April, the water is completely drained out and the outlets are closed. No more water is allowed to enter, but if by any chance water enters the fields, it is drained out. The land is then left to dry. When it is sufficiently dry, throughout the length and breadth of the field, mounds of at least 3′ x 3′ x 1½′ are formed. They are left as such till 3 or 4 good showers are received and the excess salt washed off. Sprouted seeds are then sown broadcast on the mounds. By about July, when the monsoon has fully set in, the salinity in the backwater is brought down to a tolerable extent by the flood waters from the rivers. Meanwhile, the fields are full of sweet rain water, almost submerging the mounds. The plants also would have attained 1′ to 1′ 6″ in height. The mounds are cut into slices with a special type of spade (the common spades that are used in coastal sandy areas) along with the clumps of seedlings and thrown all around. With this operation the mounds are levelled. In order to have a uniform stand the seedlings are spread out, normally keeping a distance of 12 to 18 inches. No other inter-cultural operations are performed after transplanting except weeding, whenever necessary. The crop is harvested by October. Until harvest the water remains sweet because of rains and the onrush from the river. Thus in essence the entire success of Pokkali cultivation depends upon how far the cultivator is able to regulate the flow of water. This depends upon the tidal action, the strength of the bunds, nearness to the backwaters, the flood during monsoon in the backwaters etc. Of these, nearness to backwaters or accessibility to backwaters is an important factor. If it is near the backwaters, the water can be drained into it very quickly. But at the same time water may enter the field easily and breach of bunds is very common, especially during rains. Broadly, these lands can be divided into 3 types—those lying close to the garden lands, comparatively of higher elevation, those lying close to the backwaters or *thodu* and those lying in between. Draining water from those lying close to the garden lands is difficult. But, once the draining is complete, it is safe from breach of bunds and entry of saline water. These advantages and disadvantages decrease and increase as one goes nearer to the backwaters.

Varieties of Paddy

A large number of local varieties of paddy are grown in Ernakulam District and they are known by different

names in different localities. Among the local strains the popular varieties grown in Pokkali, Viruppu, and Mundakan are given in Table VII.

TABLE VII

Local Varieties

Season		Variety	Duration
Pokkali	1	Cheru	135 days
	2	Kuruka	110 „
	3	Chootttu Pokkali	120 „
	4	Chitti Viruppu	120 „
Viruppu	1	Aryan	145 „
	2	Kuthiravali	130 „
	3	Thavalakkannan	130 „
	4	Onavattan	120 „
	5	Cheera	120 „
Mundakan	1	Ittikandappan	145 to 150 days
	2	Chitteni	125 days
	3	Adikkarai	135 „
	4	Chempavu	135 „

Cultivation of Pattambi strains recommended for Ernakulam District by the Agriculture Department is becoming popular among the cultivators. The varieties recommended are as mentioned in Table VIII.

TABLE VIII

Improved Varieties

Season	Variety			Duration	Average yield per acre	Percentage increase over ryot's crop
Punja		P.T.B.	10	90 days	2500 lb.	15
Viruppu	1	P.T.B.	9	130 „	2500 „	13
	2	„	2	140 „	2500 „	15
	3	„	1	140 „	3000 „	15
	4	„	10	110 „	2500 „	15
Mundakan	1	P.T.B.	27	130 to 140 days	3500 „	11.9
	2	„	20	130 to 135 days	2500 „	44.7

No improved strain is available for Pokkali area. Research on this is in progress.

The average yield of paddy in Ernakulam District is about 1,500 lb. per acre. In crop competitions yields of 6,800 lb. and 7,500 lb. have been obtained by the

competitors. However, if scientific methods of cultivation and improved strains are used, the average yield can be raised up to 3,500 lb. per acre.

CASH CROPS

Among the oil seeds, the most important is coconut.

Coconut

Coconut (*Cocos nucifera* Linn) is the most important cash crop of the District. Natural conditions in this District are ideal for the cultivation of coconut. The crop thrives well along the sea-coast and in the interior up to an altitude of 1,500 feet. Coconut occupied 19.8% of the total cropped area of the District in 1962-63. The District accounts for almost 12% of the total area under the crop for the whole State and almost 12% of the production of nuts in the State, thereby keeping the average production level with that of the State. The average yield of coconuts in this District can be put at 2,600 nuts per acre or 37 or say 40 nuts per tree. The total area under coconut cultivation in 1962-63 was 1,11,074 acres.

Coconut is important in the economy of the District in a number of ways. Firstly, the outer husk goes to support the most important cottage industry, viz., the coir industry. The kernel is used for edible purposes and in addition, it is the mainstay of a large number of coconut oil millers. Coconut oil, in turn, forms a raw material for the soap industry. The trunk of the mature tree is used in the construction of houses, the leaves are plaited to thatch the roofs of houses, inflorescences are sometimes tapped for toddy and the stem and shell are used for fuel. The shell of the coconut serves as a medium for the expression of one of the finest forms of craftsmanship. In short, there is no other tree which has such a diversity of uses.

Coconut is grown in scattered patches along the bunds of paddy fields, river banks, backwater stretches and in the compounds of residential houses. In the sandy tracts where coconut cultivation is easy and inexpensive, the tree is planted in every available acre, while in laterite regions where the cultivation is comparatively expensive and difficult, it is usually planted in the vicinity of backwaters and estuaries and on the lower slopes of the hills that surround paddy fields. As the District gets heavy rainfall, trenches

are often dug round the coconut garden and mud walls raised to prevent the soil from being washed away. These trenches serve as water courses during the monsoons and also as foot paths for men and animals.

For propagation fully matured nuts fiom old trees are selected. They are dried in the sun for some days and then soaked in water for ten to twenty days. They are then buried in rich loamy soil with the tops showing above ground. The nuts begin to sprout in about three months and the seedlings are planted within a year in pits just before the outbreak of the south-west monsoon. The pits should be forty men's feet apart and an acre should not comprise more than sixty trees. But overplanting is so common that as many as hundred trees are often found in an acre. Ash is often buried with the seedlings and sometimes a handful of salt also to keep away the attack of pests. The plants are watered everywhere in the hot season for the first three years and the pits are gradually filled up, partly with soil washed in by rain, and partly with leaf, ash and cattle dung. All that is necessary thereafter is to plough up the soil at least once a year and to dig shallow trenches round the trees and fill them up with manure. The trenches are usually dug during the monsoons. The time required for the coconut trees to come into bearing differs with the different varieties of the tree and the nature of the soils in which they are grown. On an average the trees come into full bearing about the tenth year. They bear vigorously for about thirty years and then begin to decline. The nuts are plucked six or eight times in the year.

Lemon-grass (Inchippullu)

Lemon grass oil which is an important raw material for the perfumery soap and cosmetic industries is extracted by distilling the leaves of the grass *Cymbopogon flexuosus*, Stapf. In India, Kerala is the most important producer of this crop. In 1962-63 the Ernakulam District stood first in the production of lemon grass oil among the Districts of the State. The total out-turn for the year was 860,691 bottles of 22 ozs. each. The major lemon grass growing areas are Kuruppampadi, Odakkali, Thodupuzha, Moovattupuzha etc. At Odakkali there is a Lemongrass Oil Research Station. The grass grows on the fertile hill slopes when the monsoon begins. It flourishes in hard laterite soils.

Fertile hill slopes with hard laterite soils are selected for the cultivation. During February-March the site selected is first cleared of all undergrowth of vegetation by burning them. In April-May the land is ploughed and is prepared into long narrow beds for cultivation of lemon grass. Usually in one acre 15 to 20 lb. of seeds are own. The seeds are sown broadcast. The crop is also grown by transplanting seedlings raised in separate nurseries. The cost of cultivation of this crop is very low Much care is not needed during the period of growth of the plant. There are two varieties of lemon grass, red stem and white stem. The former variety gives better quality oil containing greater quantity of citral. Generally the harvesting will begin five months after sowing. It has to be done before the flowering season of the crop. Five cuttings are annually taken. After the first cutting, subsequent cuttings are done at intervals of 30 to 45 days. Usually the harvesting season ends by the month of December. The life of the lemon-grass plant is five to eight years. The yield of the crop varies from year to year.

In Kerala an old country method is being resorted to for distilling the lemon grass oil. The old apparatus consists of copper boiler, condenser (*coil*), receiver and wooden tub. The raw grass and water are put in the boiler specially made for this purpose. The shape of boiler is like a retort apparatus. Then the boiler is heated with firewood. After some time a mixture of water vapour and essential oil escapes through the copper spiral connected to the retort. This copper spiral is allowed to cool down by immersing it in a wooden bucket full of water. The wooden bucket has an opening near the bottom to let off the water as it becomes hot during the distillation time. The essential oil and water will be collected in the receiver tub. The specific gravity of the essential oil is lower than water. So naturally the lemongrass oil floats at the top of the receiver tub. Then it is separated from water.

Lemongrass oil is packed in steel drums which have a capacity of 40 to 45 gallons each. It is mainly exported to the United States of America and United Kingdom.

Rubber

Kerala is the largest producer of rubber in India, 97% of India's rubber being cultivated here. In 1962-63 Ernakulam had 45,775 acres under rubber, i.e., more than 13% of the area under rubber in the

State. The District stood fourth among the Districts of the State in point of area and fifth in production. The most important of the rubber producing Taluks are Moovattupuzha, Thodupuzha and Kunnathunad. Under the Third Five Year Plan, Government have undertaken the planting of rubber on a plantation basis at Kaladi in Alwaye Taluk. The area to be covered comes to 10,000 acres. The financial outlay proposed for the scheme is Rs. 125 lakhs. For the cultivation of rubber a warm and humid climate is necessary. The annual rainfall should be between 80-120 inches and should be well distributed. A stiff alluvial soil which is neither too steep nor too swampy is suited for cultivating rubber. Young plants or seeds are planted in pits of about 18" x 18". The planting season is from May to September. Usually 150 to 200 plants are planted in an acre. Tapping of rubber will begin after seven or eight years of planting. The period of tapping is from September to January. The latex brought by the tappers is first of all freed from sand, bark and other impurities by straining at the coagulating shed constructed specially for the purpose. In the case of crepe rubber, coagulation is done by using acetic acid. For changing latex into sheet rubber the latex after being bulked and diluted is put into shallow pans. For removing water and for getting a definite shape, the coagulam is pressed by hand. Then the sheets are allowed to pass two or three times between smooth rollers. The sheets are usually again passed through a machine for printing the trade mark of the estate. These sheets are washed. Then these sheets are placed in specially constructed houses, known as smoke houses, and hot air with a temperature of 115° to 120° F is allowed to circulate in the room. This is done for fifteen days. The colour of the sheet will change into black from white. There are three important types of rubber, smoked sheet, latex crepe and scrap rubber. Of these the most important one is the smoked sheet.

CONDIMENTS AND SPICES

The most important spices grown in the District are black pepper, ginger, betelnuts, turmeric, nutmeg etc.

Black Pepper

Historically pepper (Piper Nigrum Linn) is the most important crop of Kerala, "the magnet which drew the Moors and then the Portuguese to Malabar". Kerala produces

98% of the total production of black pepper in India. In 1962-63 Ernakulam had 16,821 acres under pepper, the District standing fourth among the Districts of the State in area as well as production and the crop occupying 3% of the total cropped area of the District. Pepper, being a rainfed crop, grows best in tropical regions where there is an average rainfall of about 80 inches. The lower and upper limits of temperature in which the crop can flourish are 50°F and 140° F. It grows in places with altitude less than 3,000 feet. The suitable soils for pepper cultivation are clay loam, red loam or sandy loam soils, the first being the most suitable. The crop is propagated vegetatively by means of cuttings. It is a wood climber and requires some support for growing. Jack and Mango trees are commonly used as supports for the vines. Elavu and Murukku trees are also used. On a plantation basis they are planted at a distance of ten feet apart. The vine is rarely allowed to grow beyond a height of twenty feet, lest the picking of the pepper berries should become difficult.

The vines begin to bear after three years of planting. The flowering period is from June to July. The harvesting period is from December to March. When ripe the colour of the berries is orange. The berries are allowed to dry in the sun in mats for a week till the colour becomes black. Sometimes the skin of the ripe berries is removed before drying. This kind of pepper is known as white pepper and is produced only in limited quantities.

The yield mainly depends upon the fertility of the soil and the locality. The yield at the first harvest is generally poor. Full yield can be expected from the seventh year. Usually in an acre there will be 300 to 400 standards where pepper is cultivated on a plantation scale. The average yield per standard varies between 1/4 lb. and 2 lbs. of dried produce. The life of the plant ranges between 25 and 30 years. But it is to be pointed out that some of the vines have been found to live up to sixty years. The best manures to be used for the pepper gardens are powdered beancake, fish guano and dried prawn. One of the major diseases that affects pepper is "Pollu' by which the pepper berries are rendered hollow. The dried black pepper is graded and packed. The pepper is generally packed in double gunny bags. It is mainly exported to the United States of America and the United Kingdom.

Ginger (Inchi)

The area under ginger in the District was 2,860 acres in 1962-63. This represented about 10% of the total area under the crop in the State. Ernakulam occupied the 4th rank among the Districts of the State in the matter of ginger cultivation. Ginger requires heavy rainfall. It needs a warm, humid climate and considerable shade. The soils suitable for ginger cultivation are well-drained sandy clay loam, red loam or laterite soils. Planting usually begins by the end of May or beginning of June before the commencement of the heavy rains. Ginger rhizomes (underground stems) are planted. Before planting, the ground is ploughed and manured. The seeds are planted in these beds in small pits at a distance of 6-10 inches. After planting, the beds are covered with leaves with a view to protecting the young shoots from the onslaught of the rain and to serving as manure also. The crop takes nine to ten months to attain maturity. In July-August weeding and manuring are done. The harvesting is done by digging out the rhizomes. Usually cattle manure is used. The yield is generally eight to ten times of the seed rate. In Kerala the average yield of ginger is about 1,000 lb. per acre. Dry ginger as a market produce is prepared as follows. First the outer skin of the green rhizomes is removed. Then they are soaked in water and kept overnight. In the morning they are cleaned well. Then these rhizomes are allowed to dry for a week in the hot sun. They are again cleaned. This ginger is known as the 'rough' or 'unbleached ginger' of commerce. There is another variety of ginger known as 'lime ginger' or 'bleached ginger'. The process is a bit different from the above. The green ginger is put in shallow cisterns and they are cleaned by water repeatedly. When they are finally cleaned they are put in a solution containing milk of lime for some time after which they are dried in the sun. This process of dipping in lime and drying will be continued a number of times until the rhizomes get a uniform coating of lime. Then they are graded. There are three important export grades B, C, and D. B quality ginger will have three fingers. The other two grades (C and D) have two fingers and one finger respectively. The B and C grades of ginger are exported to foreign markets. The D grade, being small pieces of ginger, are mostly consumed internally in India. Indian ginger is mainly exported to Aden, Arabia and the United Kingdom.

Nutmeg (Jathikka)

Nutmeg (*Myristica fragrans*) which is a prominent member of the 'Spices family' is grown in this District much more extensively than in other parts of Kerala. The nutmeg is a beautiful bushy tree normally attaining a height of 40' to 60' with many spreading branches. It thrives on a variety of soils except those of a purely sandy nature. Nutmeg trees are usually propagated from seeds. Pits of 3' x 3' x 3' size are dug out, filled with good top soil and the seedlings planted with a spacing of about 26' both ways. The plant will normally start bearing from the sixth year onwards, but it attains its full bearing stage only after a growth of fifteen years. Fruits are produced throughout the year, but the peak season is from December to May. They ripen in about six months after pollination. Almost all parts of the fruit are used. The husk of ripe fruits is used for making nutmeg jelly while the mace is used for flavouring dishes and also along with *pansupari*. The fruit of the nutmeg is used in medicinal preparations too.

The biggest yielding plantation of nutmeg in Kerala is in the estate of a private agriculturist at Kaladi. In this estate nutmeg is planted systematically mixed with mangosteen and other fruit trees. There are about 90 heavy yielding nutmeg trees ranging from 35 to 40 years in age in this estate. The average yield per tree is 3,000 to 4,000 nuts per year.

FRUITS

Mango

Ernakulam District occupies the fourth rank in regard to the area under mangoes in the State. In 1962-63 the District had 18,877 acres under mango, the percentage of this area to the total cropped area in the District being 3.4. Mango (*Mangifera indica*) is the fruit *par excellence* of India. The English word is derived through the Portuguese who called it by the Malayalam term "Manga". Owing to its high adaptability to different kinds of soils, the cheapness of its culture, its high yields, and extremely delicious table qualities, it has been cultivated extensively in the District from time immemorial. It is an evergreen tree blossoming from January to April according to situation, the fruit ripening from May to July. There are many varieties. Some of them are good for curries and pickles while others are



A HEALTHY FOUR YEAR OLD NUTMEG PLANT



FULLY RIPE FRUITS OF NUTMEG

excellent as fruits. Among the local varieties the Chandrakkaran is the most popular with children. The mango tree is best propagated by grafting, though it readily grows from seeds. The wood of the mango tree is used as fuel for building canoes and sometimes for houses and furniture.

Cashewnut

Cashewnut (*Anacardium occidentale* Linn.) is the most important of "dried fruits". It was introduced by the Portuguese Navigator, Cabral, from Brazil in South America. It is a tree that thrives on any soil and is found in most parts of the District, growing wild on waste lands (*parambas*) particularly in the coastal tract. During the last decade, the marked increase in the export trade of this dollar earning crop has given a new impetus to its cultivation, and it is now being systematically cultivated over extensive areas.

In 1962-63 Ernakulam had 16,561 acres under cashewnut, the crop occupying 3% of the total cropped area of the District, the District standing fifth among the Districts of the State in area as well as production. The tree is met with practically in all parts of the District. No particular care is usually shown by the local people in seed selection, planting etc. Generally 2 seeds are dibbled in pits already dug for the purpose. The rearing of the cashew tree costs but little labour or money except that the young tree has to be protected from cattle for the first three or four years. The fruit consists of a red or yellow fleshy peduncle with a hard nut attached to it. The kernel of the nut is utilised in many culinary preparations, while the peduncle allays hunger and thirst.

The planting is often done in a haphazard way without proper spacing. The number of trees planted per acre has been found to vary from 50 to 200 and as much as over 1000 in some areas.[1] No manuring is done to the crop. The cost of cultivation comes only to Rs. 70 to 75 per acre. The crop begins to bear fruit within three years. The ripe fruits are harvested with a bamboo stick with a hook or picked up when they fall on the ground. The raw nuts are removed from the peduncle and dried and marketed.

1 *Report of the Spices Enquiry Committee*, p. 101

The raw nuts are converted into kernels and exported. Cashew apples have a food value but are not in demand. A subsidiary industry that has sprung up out of the cashew industry is the shell oil manufacture. Cashew kernels are a luxury article which the common man can hardly afford to buy. Harvesting begins in February and extends upto May. The peak period is March-April. The common practice is to sell the crop even at the flowering stage. Middlemen take cashewnuts on contract and sell the produce to wholesalers in big assembling centres. There are also itinerant collectors of nuts. Large producers sell direct to the agents of the assembling merchants.

Sarpagandhi

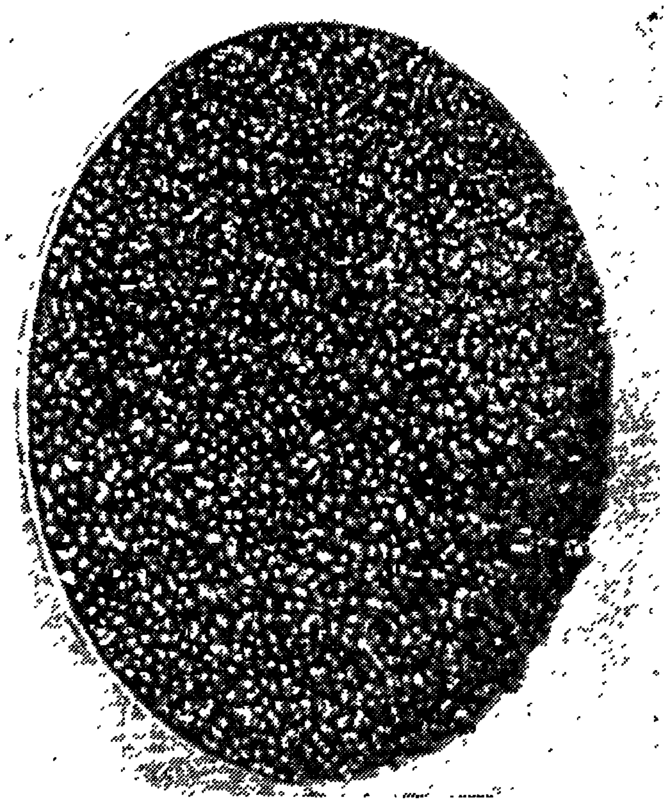
The District is famous for the cultivation of Sarpagandhi (*Rauwolfia serpentina*), the 'wonder plant' whose roots are used in the preparation of Serpasil, a very effective drug in the treatment of high blood pressure and mental diseases. The plant is known as Chuvanna Avilporiyan in Malayalam and Nagagandhi in Sanskrit. The Sarpagandhi plant is an erect glabrous perennial shrub, about 2 to 3 feet in height. It requires a warm and humid climate and is found common in the forest area as wild growth. Deep sandy loam or clay with sand is good for the crop. The plant is propagated by seeds and also by vegetative means, by using stem or root cuttings. It flowers from April to November and the fruits mature from July to March. During the summer the leaves are shed, but with the onset of the rains, it flushes again and grows vigorously. The roots of the plant are rich in fibre content. They are marketed in small bits of 4″ to 6″ size, packed in gunny bags. A good number of alkaloids have been isolated from the roots, *reserpin* being the most important. The stems and leaves of the plant have also medicinal properties. Systematic cultivation of Sarpagandhi has been taken up in Kerala only very recently. An area of 600 acres in the Forest Range at Kaladi was brought under cultivation in 1962. This is the biggest Sarpagandhi plantation in the world.

Crop Calendar

The calendar of agricultural operations for some important crops in the District is given in Table IX.



A YOUNG SARPAGANDHI (RAUWOLFIA SERPENTINA) PLANT



RIPE FRUITS OF SARPAGANDHI

TABLE IX

Calendar of Agricultural Operations

Crop	Sowing	Harvesting	Peak Marketing
Rice			
Autumn (Viruppu)	Apr.-June	Aug.-Oct.	Sept.-Oct.
Winter (Mundakan)	Aug.-Oct.	Dec.-Feb.	Jan.-Feb.
Summer (Punja)	Nov.-Dec.	Feb.-Mar.	Mar.-Apr.
	Jan.-Mar.	Apr.-May	May-June
Sugarcane			
1st crop	Nov.-Feb.	Oct.-Dec.	Nov.-Dec.
2nd crop	Jan.-Mar.	Dec.-Feb.	Feb.
Ginger (raw)	Apr.-May	Nov.-Jan.	Dec.-Jan.
Pepper	..	Nov.-Jan.	Dec.-Feb.
Sweet Potatoes			
1st crop	June-July	Sept.-Oct.	Sept.-Oct.
2nd crop	Sept.-Oct.	Dec.-Jan.	Dec.-Jan.
3rd crop	Nov-Dec.	Feb.-Mar.	Feb-Mar.
Turmeric	Apr.-May	Dec.-Jan.	Jan.-Feb.
Lemongrass	—	June-Sept.	Sept.
Tapioca			
1st crop	Oct.-Nov.	Aug.-Sept.	Aug.-Sept.
2nd crop	Mar.-May	Nov.-Jan.	Dec.-Jan.
3rd crop	Jul.-Sept.	May.-Jul.	June-Jul.

Agricultural Implements

Agricultural implements now in use in the District are antiquated and inefficient. They include the local plough, spades of different patterns, rakes, and levelling planks. The chief tillage implement is the wooden plough (*Kalappa* or *Menjala*). It consists of a tongue of wood fitted with an iron tooth, a stilt for holding, and a pole to be attached to the necks of bullocks or buffaloes. The plough is usually worked by one man and a pair of bullocks. It makes 'V' shaped furrows leaving ridges of unploughed land. The plough is also incapable of inverting the soil due to the absence of the mould board. Moreover, it leads to considerable waste of energy. The Department of Agriculture has designed certain types of iron plough to suit local conditions. But only very rarely does one see an improved mould board or iron plough being used. This is mainly due to the fact that the initial cost of an iron plough is high.

Next to plough, the most important tillage implement used by cultivators is the *Gnapuri Palaka* or levelling board. This is a heavy wooden plank generally drawn by bullocks or buffaloes to level the land. The scooped surface of the plank runs over the clods and crushes them. The *Gnapuri Palaka* is used both in dry and wet seasons.

The spade is the most important hand tool in use. It is locally called the *Mammatti* or *Kaikot*. It is used for agricultural operations like digging, mulching, earthing up etc. There are various kinds of them to suit local conditions. Even though hand weeding is the rule, a small digger with an iron blade and wooden handle is used for weeding in some parts. The soil between the spaces of the plants is stirred by different kinds of hoes. Worn out *mammatties* are also used for inter-cultivating, weeding, and mulching up dry crops. The principal tool for harvesting is the sickle (*Arival*) with a serrated cutting edge and a wooden handle. This is mainly used for the harvesting of paddy and for cutting fodder.

Table X gives a comparative study of the position of the number of agricultural implements and machinery used in the Ernakulam District in 1961.

TABLE XJ

Agricultural Implements & Machinery, 1961

	Item	No.
I	Ploughs	
	(a) Wooden	78,417
	(b) Iron	338
II	Carts	1,037
III	Sugarcane Crushers	
	(a) Power	20
	(b) Bullocks	138
IV	Oil Engines	245
V	Electric Pumps	676
VI	Tractors	
	(a) Government	4
	(b) Private	18
VII	Ghani	
	(a) More than 5 seers	80
	(b) Less than 5 seers	125

There is considerable scope for improvement in agricultural implements according to the modern concepts of soil science. Tractors, electric pumps and oil engines are gradually coming into use in the District. However, the indigenous plough still continues to be the main implement of cultivation. It is associated with the work of the farmer for generations and it is not, therefore, easy to replace it. The iron plough is also more expensive. It is too heavy to be carried to the field and drawn by his poor animals. While much of the above is seemingly true, many ryots will not find it difficult to operate iron ploughs once they surmount the initial inertia. The slow adoption of improved implements is mostly due to non-availability of implements and machinery suited to local conditions as well as due to their high cost. The topographical conditions and techniques of cultivation are unique in Kerala and there is need for new implements designed and developed to suit such conditions.

Agricultural Pests and Diseases

The agricultural crops of the District, particularly Paddy and Coconut, are affected by pests and diseases. A statement showing the area affected by pests and diseases in the case of paddy and coconut in 1961-63 is given in Table XI. The most important pests and diseases affecting the main crops of the District, viz., Paddy, Coconut, Pepper, Cashewnut, Mango, Rubber etc., the nature of the damage caused by them and the remedial measures adopted are described in Table XII.

TABLE XI

Area under Paddy & Coconut affected by Pests and Diseases (1961-63)

Crop	Name of the pest disease	Area affected (in acres)	
		1961-62	1962-63
Paddy	1 Stem borer	6,558	14,452.5
	2 Army worm	3,891	..
	3 Rice bug	3,208	15,312
	4 Leaf roller	12,228	95
	5 Case worm	3,086	10,867
	6 Hispa	383	179
	7 Foot rot	334	850
	8 Blast	246	1,676
	9 Leaf eating caterpillar		56
	10 Blight		1,692
Coconut	1 Prophylaxis in seedlings		20
	2 Rhenoceros beetle		4,358
	3 Bud-rot		232
	4 Leaf-rot		6,997
	5 Nephantis		10

TABLE XII

(i) Important Crop Pests and their Control

Pest	Nature of Damage	Control Measures
	PADDY	
1 Rice Swarming caterpillar (Lepidoptera—Noctuidae) Spodoptera mauritia	They feed on the leaves of paddy. They appear suddenly in the field in large swarms and destroy the whole field. The attack is usually in the nursery and early growing stages. Attacked plants reduce to stumps and die.	1 Flood the field and submerge the crop for 10-12 hours. 2 Collect the Caterpillars by Sweeping with suitable baskets and destroy them. 3 Let into the fields herds of duck. 4 Spray 0.25% D.D.T. at 30-40 glns./acre or dust D.D.T. 5% or B.H.C. 10% at 15 lb. /acre.
2 Rice Stem Borer (Lepidoptera Pyralidae) Schoenobius incertulus	The tiny caterpillars move down to the paddy stem and bore into it. They feed on the internal tissues as a result of which the central shoot fades and dies and the ear-head becomes white.	1 Collect egg mass from nursery and destroy. 2 Trap the moths by light traps. 3 Dip the seedlings in 0.08% Folidol, or 0.05% Endrin or spray the nursery with them before transplantation. 4 Dust at regular intervals 5% BHC, 5% D.D.T. or 10% Endrin till flowering.
3 Rice Bug (Hemiptera-Coreidae)	Appear in the field during ear-bearing season and damage the crop by sucking the milky juice of tender grains which become chaffy in consequence.	1 Collect nymphs and adults and destroy them 2 Dust with 5% or 10% BHC at 10-12 lb. per acre.
4 Rice Hispa (Coleoptera—Chrysomelidae) Hispa armigera.	Small bluish black beetles covered all over with short spines. Both adults and grubs damage plants. Adults feed on the green matter and grubs mine the leaves and feed from within.	1 Collect the beetle with hand nets and destroy. 2 Dust with 10% B.H.C. or 5% D.D.T. at 15-20 lb per acre.
5 Rice Case Worm (Lepidoptera-Pyralidae) Nymphula depunctalis	Adult is a small white moth with brownish markings on wings. Caterpillars damage paddy plants by defoliation.	1 Collect in nets and destroy 2 Dust with BHC 10% or 2% Aldrin dust.
6 Paddy Leaf Roller (Lepidoptera-Pyralidae) Cnaphalocrocis medinalis Minor Pests of Paddy.	The Caterpillars damage by folding the leaves and feeding on the green matter from within. Leaves get dried up.	Dust BHC 5% or Spray DDT 0.2%
	PEPPER	
Pepper Pollu beetle Longitarsus nigripennis.	The beetle grubs bore into the tender berry and feed on the internal contents making it hollow. The full fed grub drops into the soil and turns into pupa within an earthen chamber.	Spray regularly with 0.125% DDT.
	COCONUT	
Rhinoceros beetle Oryctes rhinoceros.	It bores into the unopened leaves of the tree, cutting and chewing the tender foliage. The leaf surface is thereby considerably reduced, retards the growth of the palm and reduces.	1 Keep the plantations free of dead and decaying coconut and other trees. 2 Spray manure heaps with BHC 0.2% to prevent breeding of beetles.

(I) Important Crop Pests and their Control—*Concld.*

Pest	Nature of Damage	Control Measures
	MANGO	
1 Mango Hopper Idiocerus niveosparsus	Suck up juice from shoots and flower stalks. The drainage of sap causes the flower and buds to dry up and wither. The hopper excretes a sweet fluid which encourages the growth of a sooty mould.	Spray DDT 0.16%
2 Mango stem borer beetle	The grub bores into the stem and branches.	1 Kill the beetles found in the garden. 2 Syringe petrol into the larval burrow and close it with clay or mud.
	CASHEW	
1 Cashew stem borer Plocoderus ferrugineus	Grubs bore into the stem. Attacked plants eventually die.	Spraying 0.01% BHC suspension into bore holes.
2 Thrips Sclenothirps rebrocinctus.	They cover the foliage and shoots, suck juice and blighten the surface.	Spray BHC 0.05%

(II) Diseases of Cultivated Plants and their Control

Disease and Casual Organism	Symptomatology	Control Measures
	PADDY	
1 Blast Piricularia oryzoe	Spindle shaped spots with grayish centres are produced on leaves (Attacks the crop in all stages of growth). As a result of infection the culm and nodes are blackened and often break at joints. When neck of the panicle is attacked the grains are unfilled and become chaffy and ear tends to break at the neck.	1 Cultivate resistant varieties 2 Spray 1% Bordeaux Mixture or any other Copper fungicides. 3 Dust with a mixture of lime and conceresa. 4 Balanced manuring; avoid excess of nitrogenous manures. 5 Treat seeds with organo-mercurials.
2 Blight or Brown leaf spot Cochliobolus miyabeanus.	Dark brown spots appear on the coleoptile, the primary shoots, leaves, leaf sheaths, nodes, glumes and the seeds. The spots on leaves are dark brown, rectangular or oval.	1 Use resistant varieties. 2 Treat seeds with organo-mercurial fungicides, like Agrosan GN or Ceresan.
3 Foot rot Gibberella fujikuroi (Fusarinm moniliformae)	The plants get elongated abnormally and leaves become pale. In transplantated crop tall lanky tillers can be identified. The attack is serious in nursery stage. The infected plants die before flowering.	Treat the seeds with Organo-mercurial compounds like Agrosan GN and Ceresan.
4 Stem rot or Sclerotial disease Sclerotium oryzae	The base of the stem rots and leaves turn yellow. The culm collapses causing the plant to lodge. Ear fails to emerge.	Drain water from infected fields.
5 False smut Ustilaginoidea virens	Attacks isolated plants infecting stray grains in the panicle and infected grains are transformed into a large velvetty olive green mass.	Eradicate affected plants.

(ii) Desease of Cultivated Plants and their Control—*Contd.*

Disease and Casual Organism	Symptomatology	Control Measures
	MANGO	
1 Powder Mildew Oidium mangiferae	The leaves and flowers are attacked with white powdery growth of the fungus. The inflorescence wither and fall.	Dust with fine sulphur.
2 Dieback or Pink disease Corticium salmonicolor	The affected twigs and small branches wither and dry up from the tip downwards	1 Cut and remove the affected twigs. 2 Spray 1% B.M. and manure the trees.
	CASHEW	
1 Decline Pythium spinosum.	[Gets defoilated during summer and twigs dry up. The tree dies in 2—3 years.	1 Treat the soil at the base of the trees with cheshnut compound solution. 2 Manure properly.
2 Powdery mildew Oidium Sp.	Shedding of flowers and drying up of inflorescence	Dust with fine sulphur.
3 Pink Disease or Die back Pellicularia salmonicolour	The disease affects the twigs and branches and they gradually dry up.	1 Cut and remove the affected branches. 2 Apply Bordeaux Paste at cut ends. 3 Spray B.M. 1%
	RUBBER	
1 Abnormal or secondary leaf fall Phytophthora Palmivora.	Defoliation of affected trees during monsoons. Severe during June, July and August. Young leaves and buds are affected and decayed.	Spray with 1% B.M. during April-May.
2 Powdery Mildew Oidium heveae.	Symptoms are white powder patches on leaf surface, infection severe in young and tender leaves. Flowers are sometimes attacked. Leaves shed.	Dust with fine sulphur several times at weekly intervals.
	COCONUT	
Leaf rot Helminthosporium halodes. Gleosporium Sp. Gleocladium Sp.	Blackening and shrivelling up of leaf tips. On maturing this breaks off. Young leaves also get infected. The tree gradually weakens and the yield is reduced.	Spray 1% B.M. or any copper fungicide. Cultural and manurial operations to be done carefully. Liberal doses of potash should be applied.
	PEPPER	
1 Wilt Phytophthora Sp.	The leaves of the affected vines turn yellow, wither and drop off. The infection starts on the stem at the soil level and roots get rotted, gradually the vines wilt.	Use resistant varieties. Isolate infected vines by digging trenches. Drench the soil around the infected vines with Cheshnut compound or 0.05% wettable Ceresan solution.
2 Pollu Colletotrichum necator.	The disease appears as circular or irregular gray spots on leaves. The infection spreads to the stem and spikes too. As a result the berries shrink and dry up and become hollow and light.	Spray B.M.

Activities of the Agriculture Department

The Agriculture Department has been carrying on manifold activities for the promotion of scientific agriculture in the District. The main functions of the Department are to supply improved seeds to agriculturists and to bring the whole area under paddy under improved strains, to supply improved implements, fertilisers and manures, to advise the ryots about improved and advanced agricultural practices, and to take prompt control measures against pests and diseases etc.

Improved Seeds

Under the scheme for paddy seed multiplication and distribution an attempt is being made to populaıise the growing of improved varieties of paddy and to staturate the entire rice area with these varieties. There are three Seed Farms in this District intended for the multiplication and distribution of improved strains of paddy among the cultivators. They are located at Alwaye, Chengamanad and Karimannur. The foundation seeds produced at the State Seed Farms are further multiplied through Primary Seed Farms organised in the holdings of registered growers. The seeds so produced are procured by the Department and further distributed to growers for replacing the local strains. The area cultivated in each farm and the quantity of seeds produced in 1961-62 and 1962-63 are given in Table XIII.

TABLE XIII

Area cultivated and the quantity of seeds produced in the Seed Farms

Name of Seed Farm	Area in acres		Quantity of seeds produced	
	1961-62	1962-63	1961-62	1962-63
Total	**38.11**	**49.00**	**29543** kg	**40768** kg.
Alwaye	12.25	12.25	10250 „	14137 „
Chengamanad	12.82	23.71	8215 „	14091 „
Karimannur	13.04	13.04	11078 „	12540 „

Fertilisers and Manures

The distribution of fertilisers and manures is another important item of work connected with the drive for increasing the production of food. Till recently fertilisers were

distributed from Government Depots by the Agricultural Assistants and Extension Officers and also by private firms. Now the manures and fertilisers are distributed by the Fertilisers and Chemicals, Travancore, Ltd. (F.A.C.T.) and other private companies like the Kerala Commercial Fertilisers and Agencies, Ernakulam, Rallis India Ltd., Cochin, T. Stanes and Company Ltd., Cochin, Shaw Wallace & Co.,Ltd., Cochin, Pierce Leslie and Co., Vaipin, B. N. Elias and Co., Jew Town, Mattancherri and Scientific Fertilisers Company, Cochin. The distribution of Government fertilisers is entrusted to the F.A.C.T. Ltd., Alwaye. There are 4 Central Depots and 207 Sub-Depots of the F. A. C. T. in the District for the distribution of fertilisers. The Central Depots are located at Ernakulam, Mattancherri, Alwaye and Moovattupuzha. Table XIV will give an idea of the total quantity of manures used in the District in 1963-64.

TABLE XIV

Total Turn-over of Central Depots in Ernakulam District in 1963-64

Name of manure or fertiliser	Quantity sold in M. Tonnes
Ammonium Sulphate	229
Urea	54
Calcium Ammonium Nitrate	130
Ammonium Sulphate Nitrate	4
Bonemeal	267
Mono Ammonium Phosphate	..
Nitro Phosphate	..
Hyperphosphate	5
Factamfos	229
Superphosphate	250
Muriate of Potash	94
Rock Phosphate	10
Ultrafos	9
Mixtures	2703

Compost Development

Another major activity of the Department is connected with compost development. In view of the short supply of nitrogenous fertilisers and the difficulty of importing them, it is felt necessary to exploit fully all manurial resources locally available. Cattle dung and organic wastes of all kinds are converted into compost manures by improved

scientific processes. Night soil and sweepings collected from the Municipalities and Panchayats are being converted into compost manure by the adoption of scientific methods of composting. The Agricultural Assistants, Agricultural Extension Officers, Compost Inspectors, Fieldmen and Gramasevaks are given certain targets which they are expected to fulfil. It is seen that while in 1960-61 the production of compost in the District was 14,797 tons, it rose to 28,648 tons in 1962-63. In 1960-61 the number of pits opened were 7,112 while in 1962-63 it came to 9,202. In addition, there is a compost production scheme at Thrikkakkara. It aims at the manufacture of compost from the municipal sweepings and the dung obtained from the private dairy farms in Ernakulam. The annual production is estimated at 2,500 tons.

The Green Manure Scheme envisages the distribution of green manure seeds, both of the perennial and seasonal varieties. Among the perennial varieties the seeds of *Glyricidia maculata* and *Indigofera teyesmania* are distributed. Intensive propaganda work is carried on by the Agriculture Department in the District for the popularisation of green manure growing. The Glyricidia Month for popularising *Glyricidia maculata* is being celebrated during the last few years with good response.

Plant Protection

The Department takes timely measures for the control of pests and diseases. There is a plant protection staff in the District to take prompt and quick control measures to eradicate pests and diseases on crops and also to take prophylactic measures to prevent the attack. The Plant Protection Scheme in the District consists of stocking sufficient number of dusters and sprayers to be given to cultivators to combat pest attacks as also stocking and distributing adequate quantities of insecticides and fungicides from suitable centres to cultivators. These equipments and chemicals are stocked at different centres in the District in the offices of the Agricultural Assistants, Agricultural Extension Officers and Gramasevaks. Plant Protection equipments are distributed to bonafide cultivators at subsidised rates. The Plant Protection Assistant in the District makes periodical observations on the incidence of pests and diseases and organises effective control measures.

Improved Agricultural Practices

The problem of optimising agricultural production in the District is one of qualitative improvement of crops and quantitative increase of yield per acre. With this end in view the Japanese method of paddy cultivation is given top priority in the activities of the Agriculture Department. The advantages of adopting Japanese methods of cultivation are brought home to the ryots by establishing personal contacts with them, by conducting group discussions, arranging distribution of leaflets, etc. Demonstration plots are established in all parts of the District. The plots are started on privately owned lands. The owner of the land has to do all preliminary cultivation operations, use improved seeds, plant the crop in lines, do inter-cultivation, and bear all the expenses connected with harvesting and threshing. The total area under the Japanese method of cultivation was 8,097 acres in 1961-62 and 13,011 acres in 1962-63

Co-operative Farming

The encouragement of Co-operative Farming is one of the other important activities of the Department of Agriculture in the District. There are 9 Joint Farming Co-operative Societies at Kandakkadavu, Puthenvelikkara, Thekkumbhagom, Elangavom, Pampakkuda, Kanayannur, Pothanikkad, Methala, and Kuthattukulam.

Research Stations, Nurseries etc.

The Department bestows special attention in the field of research with a view to increasing agricultural production and improving the quality of agricultural products. The research stations located in the District are the Lemongrass Research Station at Odakkali (Kunnathunad), Pepper Research Station and Ginger Research Station at Elamdesam (Thodupuzha), and the Coconut Research Station and Rice Research Station at Vyttila (Kanayannur).

The Lemongrass Research Station was established in 1951. The scheme of research was initiated by the Department of Research, University of Travancore. It contemplated the establishment of a field research station to undertake field investigations regarding the production of improved varieties of lemongrass and improved distillation technique. It was later transferred to the Department of Industries and Commerce and again to the Department of Agriculture.

The Research Station is located in a typical lemongrass area between Perumbavur and Kothamangalam, easily accessible by road. The station comprises of 25 acres of Government lands securely walled all-round, and has a small field laboratory, 2 distillation sheds, one seed store and a fuel shed. The research scheme receives financial assistance to the tune of 50% of the recurring expenditure from the I.C.A.R. The object of this station is to evolve superior varieties of lemongrass and to devise an improved method of distillation suited to local conditions so that the production of lemongrass oil could be made more economical to the ryots. Introductory trials on other essential oil yielding plants like Cinnamon, Camphor, Mentha, *Citronella*, Eucalyptus and *patchouli* are also conducted here.

The Pepper Research Station, Elamdesom, commenced working with effect from 22nd January 1957. Originally it was started purely as a pepper research scheme fully financed by the I.C.A.R. The station is situated at Elamdesom, about 7 miles east of Thodupuzha town. The main objectives of the station are to carry out investigations on the agronomical, manurial and botanical aspects of pepper cultivation and to evolve improved varieties of the crop by hybridisation and selection. The area covered by the station is 25 acres.

There is also a Ginger Research Station working at Elamdesom. It was established in 1958. The station covers an area of 10 acres. Experiments on the agronomical manurial and botanical aspects of Ginger cultivation are carried out here.

The Coconut Research Station is situated at Vyttila, near Ernakulam town. It was established in 1959 and covers an area of 25.43 acres. The object of the research scheme is to conduct manurial and cultural experiments on the different aspects of coconut cultivation on a co-ordinated and planned basis.

The Rice Research Station at Vyttila, set up in 1958-59, undertakes work on the evolution of high-yielding saline resistant strains suited for the low-lying coastal areas of the State, popularly known as 'Pokkali' area. The usual plant breeding techniques, viz., introduction, selection and hybridisation are adopted for achieving the above objectives.

There are 3 Coconut Nurseries located at Edappilli, Madakathanam and Ramamangalam. Towards the end

of 1962-63, there were 100, 539 quality seedlings ready for disposal from these nurseries.

State Assistance to Agriculture

Loans under Land Improvement and Agricultural Loans Act are given to the ryots by the Revenue Department. The amount of loans sanctioned under the above enactments during each of the years from 1959-60 to 1963-64 is given below:—

Year	Amount Rs.
1959-60	2,000
1960-61	4,700
1961-62	N.A.
1962-63	52,140
1963-64	55,900

The rate of interest on the loans is 5%. The nature of security on which the loans are sanctioned is the landed properties belonging to the applicants. The security offered should be of value exceeding 25% of the amount of the loan applied for.

The Department of Agriculture also gives loans for various purposes. Table XV gives the loans sanctioned by the Agricultural Department for the cultivation of various crops.

TABLE XV

Loans sanctioned during 1961-62 and 1962-63

	Nature of loan	Amount of loan sanctioned 1961-62 Rs.	1962-63 Rs.
1	Ginger short-term loan	2,39,750.36	2,86,457.46
2	Pepper long-term loan	13,200.00	72,250.00
3	Cocanut long-term loan (Fertilizer loan)	1,975.00	15,81,227.00 (By Co-op. Dept)
4	Arecanut Development loan for sinking well	2,500.00	20,070.00
5	Arecanut purchase of Fertilizer	2,898.62	..
6	Short-term loan for paddy	1,17,189.99	1,69,641.42
7	Reclamation of kayal lands	..	60,860.00
8	Loan for cashew development	..	600.00
9	Coconut Development irrigation facilities	..	31,940.00

ANIMAL HUSBANDRY

Animal husbandry in the District is poorly developed and compares unfavourably with the well-developed agricultural sector. Low livestock productivity marks all phases of animal husbandry. The milk yield in the State is perhaps among the lowest in the country.[1] This is true also of the yield of meat from sheep and goat. Hence the contribution of animal husbandry to the state income is relatively low.

Livestock Population

According to the 1961 census of livestock the District had a total livestock population of 5,15,750 which was 10.97% of the total livestock population of the State. This consisted of 3,03,236 cattle, 21,032 buffaloes 1,45,223 sheep and goats and 45,944 others. These figures represented 11.01%, 4.34%, 10.89% and 37.30% of the State total. The number of poultry came to 1,250,097 which was 13.72% of the State total. The table at Appendix II gives the Taluk-wise distribution of livestock in the District.

The District is not a cattle-breeding tract. The cattle here do not come under any definite well-defined breed. They are all of the non-descript type, and are small in size and build. Stunted in growth, the buffalo in Kerala weighs about half of its counterpart in UP. or Punjab.[2] This is all due to its being reared under unwholesome conditions. The cattle are usually underfed. The main cattle feed consists of roughages, mostly rice straw, which is grossly deficient in protective properties. Evidently this tells upon the health, build and general condition of livestock. The District is not self-sufficient in regard to fodder and the ordinary citizen can hardly afford to purchase enough fodder because of his low income and the high price of fodder. No area seems to have been allotted specially for fodder cultivation. However, the three Dairy Farms at Vyttila have their own fodder tracts. Long standing fodder grasses like guinea grass, napier grass and para grass are raised in these farms. The supply of fodder to Ernakulam

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1 It may interesting in this context to note that "the total production of milk in Kerala in 1956 has been estimated at 1.82 lakh tons which works out to a per capita production of 1.3 oz. as against the minimum of 10 oz. per capita recommended by the Nutritional Advisory Committee of the Indian Council of Medical Research." Report of the *Techno-Economic Survey of Kerala*— N. C. A. E. R., p 56.

2 *Report of the Techno-Economic Survey of Kerala*, N. C. A. E. R., p. 57.

and Mattancherri municipal towns comes mainly from Cochin Harbour where there are vast pasture areas. The total area under fodder crops in the District comes to 534 acres.

The District is not a net importer or exporter of livestock. Cattle of good quality are very often brought from Pollachi and Vaniambalam. Of late, better breeds of cows and buffaloes are imported from foreign countries on a small scale. Moreover, cross bred English cows, Murrah buffaloes Sindhi cattle and Kangayam are also imported from Coimbatore. The exportation of country breeds to Coimbatore for breeding is also sometimes done. There is a special variety of local cows available in Vaipin Island. It is said that their yield of milk is high. This is mainly because they feed on a kind of plant having thorns. The important cattle markets in the District are Kureekad, Kizhakkambalam, Kuthattukulam, Perumbavur, Alwaye, Vazhakulam, and Vadavukode.

Price of Livestock

The livestock prices in the District are as follows:—

1 Dairy cow (Morning milk yield being one litre at the beginning of the lactation period)—Rs. 120

2 Drought Bullocks of non-descript breed and good physical condition—Rs. 200

3 Slaughter cattle of more than ten years of age and of poor physical condition—Rs. 70

4 Young stock (cattle) non-descript Rs. 45 and graded Sindhi—Rs. 70

5 Dairy Buffalo (Morning milk yield being one litre at the beginning of the lactation period)—Rs. 150

6 Drought Buffalo (non-descript) of good physical condition—Rs. 200

7 Slaughter Buffalo—Rs. 125

8 Young stock Buffalo—Rs. 55

9 Goat (Morning milk yield being one litre at the beginning of the lactation period)—Rs. 85

10 Goat for slaughter—Rs. 35

11 Prices of Fowls for breeding purpose (adult)—Rs. 3/50

12 Prices of Fowls (slaughter) per kilogram Rs.—1/75

Improvement of Cattle

In view of the poor quality of the livestock, there is urgent need for developing animal husbandry in the District. The development of animal husbandry on commercial lines by individual rural families may not be possible without adequate State action. The activities of Government consist, among other things, mainly of scientific breeding and prevention and control of diseases. The improvement of breeding is tackled by mass upgrading. The value of upgrading was realised only a few decades ago. The scheme was introduced on a large scale during the first Five Year Plan by starting Key Village Schemes and opening Artificial Insemination Centres. A Key Village is a compact area consisting of one or more contiguous villages where intensive work is done on all aspects of cattle development such as breeding, feeding, disease control, management and marketing. There are two Key Village Centres in this District, one at Moovattupuzha with six Sub-Centres at Arakuzha, Thirumaradi, Valakom, Thrikalathur, Palakuzha and Aroli and another at Ernakulam with 10 Sub-Centres at Palluruthi, Mattancherri, Chittoor, Vyttila, Mulanthuruthi, Thripunithura, Thrikkakara, Edappilli, Thiruvankulamand Udayamperur. The Artificial Insemination Centre working with headquarters at Parur has two Sub-Centres atEzhikkara and Chennamangalam. The N.C.A.E.R. team which conducted the techno-economic survey of Kerala is of the view that "the scheme had not made any significant impact on the improvement of cattle and buffalo breeds in the State."[1] They suggest that for the success and effectiveness of the upgrading programme, it is necessary, first to implement the programme intensively all over the State and secondly competition from the local bulls should also be eliminated by compulsion by castrating all the males before they reach the fourth year of their life.

The improvement of cattle depends, among other things, on the selection of high class bulls and their utilisation for grading up the local animals. Grading up of local cattle with Sindhi Stud bulls and Murrah buffalo bulls is being pursued as a policy, in addition to artificial insemination with Sindhi and Jersey semen. Stud Bulls are stationed in veterinary institutions.

There is a centre at Mattancherri for the segregation of old animals. This is conducted by Gujarathis on a religious

1 *Report of the Techno-Economic Survey of Kerala*, p. 58

basis. Livestock improvement work is also taken up by the N.E.S. Blocks. Further, cattle fairs and exhibitions are conducted by them and also by the Animal Husbandry Department in important places.

Poultry

Though poor in her cattle wealth, the District is rich in poultry. The Livestock Census of 1961 places the poultry population of the District at 1,250,097. This forms 13.72% of the total poultry in the State and gives Ernakulam District the second rank among the Districts of Kerala in this regard. The people have begun to appreciate the value of poultry as a source of subsidiary income and of food production and there has, therefore, been of late a substantial increase in the number of poultry keepers. The All India Poultry Extension Centre at Moovattupuzha, the Poultry Unit at Alwaye and the Poultry Farm at Koovappady are the institutions in the District attending to the development of poultry.

Cattle Diseases

Anthrax, Black Quarter, Foot and Mouth Disease, Fowl Cholera, Ranikhet Disease, Fowl Pox, H.S. Ephemeral fever, Rabies and Piropalsmosis are the main contagious diseases among livestock and poultry. Proper and adequate measures to control and eradicate these diseases are taken by the Animal Husbandry Department. Animals were vaccinated against contagious diseases like H.S., B.Q. and Anthrax. Preventive inoculations against Ranikhet Disease among poultry have also been conducted.

The District is served by Veterinary Hospitals at Ernakulam, Mattancherri, Alwaye, North Parur, Perumbavur, Moovattupuzha, Thodupuzha, Thrippunithura and Ankamali and Veterinary Dispensaries at Mulanthuruthi, Kodanad, Karumallur, Nayarambalam, Edappilli, Thrikkakkara, Paniyattur, Mutholappuram, Kuthattukulam, Kolancherri, Kothamangalam, Puthencruz, Malayattur, Vellarappilli, Eloor, Kizhakkambalam, Karimkunnam, Kalloorkad, Maneed and Pampakuda. There is a Clinical Laboratory attached to the Veterinary Hospital, Ernakulam. Table XVI shows the number of animals treated and operations performed in the Veterinary nstitutions in Ernakulam District.

TABLE XVI

Work of Veterinary Institutions

Year	No. of in-patients treated	No. of out-patients treated	No. of Castrations	Other Operations
1958-59	..	49,900	776	2,018
1959-60	..	47,560	867	2,189
1960-61	..	60,089	1,253	1,947
1961-62	..	63,509	945	1,884
1962-63	..	81,637	1,165	2,578

Dairy Farming and Milk Supply Schemes

There are three dairy farms in this District. They are at Vyttila, 3 miles from Ernakulam town. However, there are no facilities for pasteurisation. There are 8 Co-operative Milk Supply Societies in the different parts of the District. Two of them are located in Ernakulam town and others are at Alwaye, North Parur, Perumpilli, Moovattupuzha, Thodupuzha and Kuthattukulam. The estimated total production of milk for 1961 for the District was 541.43 lakh litres.

A Milk Supply Scheme for Ernakulam is in the offing. It envisages the establishment of a Dairy Project to cater to the milk requirements of a population of over five lakhs in Ernakulam, Mattancherri, Fort Cochin, Alwaye etc. The South Thrikkakkara village near the Edappilli Railway Station on the National Highway has been chosen for the location of the plant. The project is being set up with the assistance of New Zealand under the Colombo Plan and would be completed in 1965. The whole project is estimated to cost 27 lakhs of Rupees and the plant is designed to handle a maximum of 10,000 litres of milk for pasteurisation and distribution. The work on the project is in progress.

FISHERIES

Even in ancient times the fishery wealth of the District was famous, as is testified to the writings of early foreign travellers. The sea along the entire coast abounds in fish of various kinds. The backwaters, the lakes, the rivers and the reservoirs are well stocked with many kinds of fishes. Hence the District offers enormous natural facilities for

both marine and inland fisheries. Its coast line is about 32 miles in length from Munambam to Chellanam. It is quite favourable for fishing and landing. The ebb and flow of the tide are also favourable for fishing.

Fishing is the main occupation of a large number of people. The main fishing communities are Valan, Arayan, Mukkuvan and Marakkan. They occupy chiefly the shores of the backwaters and sea and pursue the traditional occupation of fishing and boat service. Alwaye is one of the biggest fish markets of Kerala State. The majority of the people consume fish as part of their daily diet. It is said that the total catches of fish are not sufficient to meet the demand from the public.

Fishing Centres

There are 9 major Fishing Centres in the District, viz., Chellanam, Fort Cochin, Kannamali, Maruvakad, Malipuram, Njarakkal, Nayarambalam, Pallipuram and Munambam. The annual turn-over of fish in each of the centres is given in Table XVII.

TABLE XVII

Annual Turn-over of Fish in Fishing Centres

Fishing Centre	Fish caught in Mds.
Chellanam	48,000
Fort Cochin	20,000
Kannamali	45,000
Maruvakad	28,000
Malippuram	40,000
Njarakkal	38,000
Nayarambalam	40,000
Pallipuram	20,000
Munambam	25,000

Species of Fish

About 14 major varieties of fish are obtained in the Ernakulam coast. The species of fish, seasons of fishery, commercial importance etc. are given in Table XVIII.

TABLE XVIII

The Species, Seasons, etc., of Fishes in the Ernakulam District

Species of fish	Seasons of fishery	Commercial importance
	MARINE	
Prawns	Caught in shoals in July to September	A good dollar earning variety of Marine Fish
Mackerels	October to March	Large portion consumed locally. A small percentage of catch cured and exported to Ceylon
Oil Sardine	"	"
Seer	October to January	During heavy catches cured and exported to Ceylon
Sharks	November to April	Used for oil extraction-oil used for medicine-shark pins exported to Hongkong and Singapore
Cat fish	December to May	50% marketed in North India and the rest is exported to Ceylon and consumed locally
	INLAND	
Prawns	Throughout the year	Exported to Burma and U.S.A.
Mullets	December to April	Locally consumed
Murrels	Especially in summer season	"
Cat fish	"	"
Tiger fish	"	"
Tilapia	"	"
Barbus	"	"
Etroplus	"	"

The majority of marine fishes are shoaling fishes. The fisheries of the Kerala Coast are comparatively more productive than those of the other zones of the Indian Coast. This is mainly due to the presence of the commercially important shoaling species of sardine and mackerel and the prawns found near the shore.

Fishing Equipments

The most common fishing boats on the coast from Kozhikode (Calicut) to Cape Comorin are *Valloms* and catamarans. The *vallom* is a canoe type of boat that

‡ *Farmers of India*, Vol. II, p. 337

is used along the whole coast. It is usally made from hard-wood types resembling teak and the boards are sewn or stitched together with coir rope. The catamaran which is used along the rocky coast is a raft type of boat made from three to five big logs bound together with rope.

All the fishing boats are dug-outs made of Cheeni and Mango wood. Two types of boats are used for marine fishing and several small sizes for inland and river fishing. A big size marine fishing boat made of Cheeni wood will cost about Rs. 2,000 and a small size about Rs. 1,250. The estimated amount required for a small size inland fishing boat made of mango wood is Rs. 175, that for medium size Rs. 200 and for big size Rs. 300. Several types of nets—boat seines, shore seines, large drift nets, gill nets, cast nets etc. are used along the coast. The details of nets used by marine fishermen have been furnished in the *Trichur District Gazetteer*.[1] The kinds of nets used by inlland fishermen are given in Table XIX.

TABLE XIX

Statement of the Types of Nets

Type of nets	Cost (Rs.)	Durability (Years)
Stakenet	50.00	2
China net	500.00	2
Vadivala	75.00	3
Pattukanni	300.00	2
Thiruthavala	1,000.00	1
Kanambuvala	100.00	1
Koodivala	150.00	1
Oduvala	300.00	1
Thirandivala	400.00	1
Adakkanmvolli	1,000.00	2
Kochuvala	200.00	2
Cast net	75.00	2
Narimeenvala	300.00	1

Mechanised Fishing

The mechanisation of fishing and introduction of modern methods of fish processing are slowly transforming the lives of the fishermen of the District. Mechanised boats under the Indo-Norwegian Project are working at Cochin successfully. There are also off-shore mechanised fishing units operating from Cochin under the control of the Government

1 See *Trichur District Gazetteer*, p. 291

of India Technological Wings working at Cochin and Ernakulam for processing and devising of new boats under the advice of F.A.O. experts. There is a Training Centre at Ernakulam for giving training to local fishermen in mechanised fishing. On completion of training mechanised boats and modern type of nets are issued to them and the cost recovered from their daily catches. An Institute of Fisheries Operatives has also been started at Ernakulam by the Government of India in 1964.[1]

Fish Curing Yards

Fish is preserved by the conventional methods. Most of the catches are sold in fresh condition for edible purposes. Fish is preserved usually when the catches cannot be disposed of in fresh condition. The traditional methods of curing are (a) sun drying without salt and (b) salt curing either by dry process or by wet process. The new methods are freezing, canning, semi-drying, icing and preservation in cold storage. The District is well served with fish curing yards. There are at present 5 fish curing yards in the District. They are located at Kannamali, Chellanam, Malipuram, Nayarambalam and Njarakkal. A detailed statement of operations in the Fish Curing Yards of the District from 1958 to 1961 is given in the Table XX.

TABLE XX

Operations in Fish Curing Yards, 1958-1961

Name of the Fish Curing Yard	Fish let in (in maunds)			Fish let out (in maunds)			Salt issued (in maunds)		
	1958-59	1959-60	1960-61	1958-59	1959-60	1960-61	1958-59	1959-60	1960-61
Kannamali	18,064	10,496	4,968	10,483	6,269	3,726	2,258	1,312	900
Malippuram	20,076	19,730	22,880	13,564	11,000	9,056	3,732	2,902	3,200
Chellanam	7,936	4,800	5,580	4,353	2.965	4,308	992	600	840
Nayarambalam	18,400	9,020	19,492	9.200	4,560	6,726	2,300	1,140	1,700
Njarakkal	32,154	12,848	25,424	16,072	6,776	12,712	4,038	1,666	3,178

Salt is issued to the ticket holders of the yards at subsidised rates under the Salt Subsidy Scheme of the Second Five Year Plan. The selling price of salt per maund in the Government Fish Curing Yards is fixed at 50% of the average cost of salt including transport charges and cost of gunny. The supply of salt at subsidised rates is a valuable help to the poor fishermen in addition to the facilities given for hygienic curing of fish.

1 For details See Chapter XV

There is an Ice-making and Quick Freezing Plant with cold storage facilities at Palluruthi. The capacity of this plant which was commissioned in August 1962 is given below :—

Ice-making	20 tons per day
Ice-storage	75 tons
Chilled Fish Storage	30-40 tons
Freezing	About 15 tons of uninsulated fish per day
Frozen storage	600 tons

It is claimed that this plant is the biggest of its kind in India.

Fish Farms and Demonstration Tanks

There are fish farms and demonstration tanks at Malipuram and Njarakkal. They are among the well known brackish water farms of the State. The Njarakkal Fish Farm is acclaimed as one of the most ideal estuarine fish farms in South East Asia. In these farms fingerlings brought down from Tanjore as well as those locally collected are distributed to the owners of tanks for cultural purposes. The details of the transactions in each of these farms during 1960-61 are given below:—

Name of the farm	Area		Fish Caught lb.	Sale proceeds of raw fish (Rs.)	Stocking of fingerlings in the farms during the year
	Acre	Cent			
Njarakkal	49	97	11,345½	8,177.00	68,987
Malipuram	52	50	4,200¼	3,562.30	24,325

Leasing of Fisheries

The income under the lease of inland waters is the major item of revenue. The fishery wealth of Government waters is ordinarily auctioned for a period of one year. In the case of Fishermen Co-operative Societies and organisations of agriculturists and Scheduled Castes, the fishery is given without auction at the concessional rate of the average of the last three years' revenue together with the value of improvements, if any, done for increasing fishery wealth of the particular water. In leasing out the fishery preference is to be given to the Fishermen Co-operative Societies who apply for the leasing right. In all other cases the fishing right is auctioned after due notification and confirmed generally in the name of the highest bidder.

A sum of Rs. 57,336.02 was realised as income under lease of Inland Fisheries from Ernakulam Division in 1960-61 alone.

Price of Fish

The cost of fresh fish is not settled by weight but by counts in the case of big fishes and heaps and basketfuls in the case of smaller varieties. It is difficult to specify exactly the prices paid by the consumer for the different species as their prices vary from season to season and from place to place. However, the following table prepared on the basis of the local assessment of prices will throw light on the subject.

Variety	Price per pound Paise
Oil sardine	13
Mackerel	15
Prawn (small)	18
Prawn (big)	25
Shark	19
Seer fish	37
Mullan	8
Cat fish	15
Manthal	7
Chemban	7
Miscellaneous	7

Fishermen's Co-operative Societies

As the first step towards modernisation of the fishing industry, Government have introduced fishermen's co-operatives. The idea is to supply the fisherfolk with implements and storage and marketing facilities. Long term loans are issued to the existing fishermen's co-operative societies for the purchase of boats and nets. Admission is restricted to bonafide fishermen. Sufficient number of boats and nets are supplied to members through the societies with Government aid and the cost of such implements recovered from their daily catches. The existing system of marketing through local curers and forwarding agents leaves the working fishermen exploited and without any voice in the marketing of their products. To avoid this and put the working fishermen themselves in complete control of the marketing of their catches, Fishermen's Co-operative Societies have been organised and there are 39

of them in the District. These include 13 Fishermen Producer Societies (Malsya Ulpadaka Co-operative Societies) organised for the benefit of actual sea-going fishermen and back water fishermen with a view to pooling the catches and arranging for the marketing of the catch through Co-operatives.

Census of Fishermen

The following table, based on the Census taken by the Department of Fisheries, in 1958 shows the present position of the number of households of fishermen in the District, the crafts and gears used by them, their indebtedness etc.

1	Name of Households	1,810
2	Average strength of a household	6.5
3	Total number of members in the household	12,282
4	Big boats	
	(a) Plank	74
	(b) Dug outs	293
	(c) Average per household	0.18
5	Small boats	
	(a) Plank	32
	(b) Dug outs	204
	(c) Average per household	0.10
6	Catamaran	170
7	Nets	
	(a) Shore seine	299
	(b) Boat seine	1,448
	(c) Drift net	593
	(d) Average per household	1.46
8	Line and hooks (sets)]	527
9	Income	Rs. 7,78,477
10	Average income	Rs. 422
11	Debt	—Rs. 2,10,667
12	Asset	+Rs. 13,900
13	Average debt per household	
	(a) For debtors only	Rs. 192
	(b) For all	Rs. 135

FISHERIES RESEARCH

There are some outstanding institutions for fisheries research in this District. Brief accounts of the most important ones are given below:—

Central Institute of Fisheries Technology, Ernakulam

The Central Institute of Fisheries Technology was set up by the Government of India at Ernakulam in 1957

in order to undertake fisheries technological investigations and researches so essential for the development of the fishing industry on modern lines. The institute functions under the direction and control of a Director. It has 3 Wings, viz., the Craft and Gear Wing, at Cochin, the Processing Wing and the Extension Information and Statistical Wing located at Ernakulam. The Craft and Gear Wing started functioning in 1957. The Processing Wing came into existence in 1959. The Extension Information and Statistical Wing was added later. The Craft and Gear Wing consists of 2 main branches, i. e., Gear Branch and Craft Branch. The work of the Processing Wing is handled in the following sections:— (1) Chemistry (2) Bacteriology, (3) Fish Curing, (4) By-products, (5) Quality control and (6) Processing. The Extension Information and Statistical Wing is mainly engaged in the task of speedy dissemination of the results obtained in the research laboratories amongst the persons and organisations connected with fisheries. This is a very essential work, because if the laboratory findings are to be of practical value they should be brought to the immediate notice of the industry. This object is being tried to be achieved through the publication of a quarterly "Newsletter" and through the media of correspondence, publication of pamhplets and booklets, demonstrations, talks and by participation in exhibitions etc. In short, during the short period of its existence the Central Institute of Fisheries Technology has made its own contribution to the development of the fishing and fish processing industry in the country.

Estuarine Research Station, Ernakulam

The Estuarine Research Station was established in 1955-56 by the State Department of Fisheries for carrying on investigation on marine and fresh water fisheries problems. It undertakes fish farm studies of the Njarakkal Fish Farm, Cochin Estuary and other waters. The investigation into the causes of fish mortality and hydrobiological studies are also done here.

University Department of Marine Biology and Oceanography, Ernakulam

The erstwhile University of Travancore initiated work on the marine life of the Kerala coast in 1939 with a

laboratory and aquarium of its own at Trivandrum. The University soon decided to extend its studies so as to cover the vaster field of the adjoining sea itself. First, a definite programme of work for a thorough scientific investigation in a little known and much less studied area had to be drawn up for which the first and permanent requisite was a well-equipped research vessel for work at sea. Simultaneously the plan had to be shaped with provision for an academic programme in Marine Biology and Oceanography at the post-graduate level to meet the demand for trained and qualified investigators at a future date. It was not until 1956 that the plan took concrete shape, first, with the building and commissioning of a research vessel (*R. V. Conch*) with the aid of the Norwegian Government, and second, by the provision of temporary laboratory space and facilities at the Cochin Naval Base due to the courtesy of the Indian Naval Physical Laboratory. At the same time, plans were made for the construction of an up-to-date laboratory with sufficient work space for an adequate team of workers doing research not only in biological aspects but also in all branches of the new science of the sea, Oceanography. A site was purchased on the Ernakulam foreshore and the new laboratory was built and occupied in June 1962. The new laboratory buildings are situated on the eastern bank of the Ernakulam Channel of the Cochin Harbour area, with facilities for berthing the research vessel.

The earlier part of the research activities of the department was directed towards a survey of the types, variety and distribution of the marine fauna present in the various regions of Kerala's coastal waters. Detailed study on the biology, habits, environments and development of selected species followed, particularly of those which were of economic value like food fishes and prawns. The next step was the investigation of the problems peculiar to the Kerala waters such as the phenomena of reversal of currents and winds associated with the monsoons, the prevalence and shifting of mud banks and their effect on fauna, the factors responsible for shoaling of food fishes like the mackerel and sardine, the regions of high production at sea and so on. The important finding of the earlier investigations is the existence of extensive beds of fishable prawns over a belt extending all along the edge of the continental shelf. A large collection of animals was made during the years 1957-'61

from different depths in a region extending from the sea off Mangalore to that of Cape Comorin. The sorting, identification and systematic study of this collection of animals are expected to go a long way in enriching our knowledge of the wealth and distribution of the marine fauna of the coastal waters[1].

Indo-Norwegian Fisheries Project

We may also refer, in this context, to the contribution of the Indo-Norwegian Fisheries Project to the development of fisheries in the District, particularly in the field of research. The Indo-Norwegian Project started functioning first in the Quilon area under a Tripartite Agreement signed between the United Nations and the Governments of Norway and India in October 1952.[2] It sought to achieve the all-round development of the fishing industry by the mechanisation of the fishing boats, provision for repair facilities, introduction of new types of fishing, supply of insulated vans and motorcrafts for transport of fresh fish, organization of fishermen's co-operatives, improvement of environmental sanitation with main stress on the supply of drinking water and establishment of a health station. In order to help in fisheries research three Norwegian fishing schooners equipped with cold storage, automatic pilot, radio telephone, echo sounder and fish finder arrived in the Cochin waters in January 1955. The port of Cochin provided excellent anchorage for these vessels. These schooners covered the entire coast from Cape Comorin to Kozhikode and collected valuable statistics and information on currents, surface temperature, weather conditions, availability of fish etc. The experience gained in the project led to a functional and geographical expansion of the Indo-Norwegian assistance programme in subsequent years. By a new agreement entered into between the United Nations, India and Norway in April 1956 it was decided to develop a new fishing centre at Cochin and to explore the possibilities of expanding the fishing industry for the export and home markets. Four medium-sized boats known as M-Boats were brought from Norway to Cochin late in 1956 in order to assist in the implementation of the project. They helped in the train-

1 For further details see Chapter XV.

2 See *Quilon District Gazetteer*, pp. 275-76 for details

ing of Indian fishermen and in the examiantion of the economic aspects of fish and prawn trawling operations. These boats were equipped with 20 H. P. semi-diesel engines, echo sounders and radio telephones. In contrast to the schooners the M-Boats were to serve the dual purpose of engaging themselves in experimental fishing and conducting commercial fishing operations. In the initial stages the Norwegian schooners and boats maintained a select Norwegian crew but gradually a reduction in the number of Norwegian fishermen took place as Indian fishermen gained enough experience to assume responsibilities and replaced the Norwegian crew. The Indo-Norwegian project also pursued all the more vigorously its marine research work in Cochin as part of its activities. One of the schooners was converted into a fishing-cum-research vessel and a number of cruises were conducted off the Malabar coast including the Laccadives. The present Research Vessel *R. V. Varuna* has an over-all length of 27.98 meters with a moulded breadth of 6.70 meters and depth of 3.38 m. It has accommodation for a crew of 17, including 4 scientists, a cabin for the skipper on the bridge, 4 single berth cabins, 2 double berth cabins and one 8 berth cabin forward under the whaleback. Three different laboratories are available in the ship, two analytic laboratories and one sampling laboratory. One small room under the whaleback is provided for fish processing. All laboratories are provided with electric energy and hot and cold water and one laboratory also with sea water. Among the scientific equipments provided in the vessel may be mentioned 15 Nansen reversing bottles, 2 bathy thermographs, one binocular, one PHRs meter, one electro-photometer, one centrifuge, one vacuum pump, sediment silts etc. The vessel is also provided with rolling keels and is able to withstand the most severe weather conditions. Upto 31st March, 1962, *Varuna* covered the areas from the wedge bank south of Cape Comorin to Goa with stations taken up to 30-40 n. miles off the continental shelf. Cruises were also made to the Laccadive and Minicoy Islands during this period. The research work was continued further north as far as Veraval, Gujarat, until the beginning of the monsoon season, when the coast of Kerala was once more intensively surveyed. *R. V. Varuna* made a significant contribution to the Indian Ocean Expedition, launched in 1964, with the main emphasis on fishery investigations.

FORESTS

The forests of the Ernakulam District are under the administrative control of the Malayattur Divisional Forest Officer. This Forest Division came into existence in 1067 K. E. (1891-92) with the passing of the Travancore Forest Regulation. It was at that time proclaimed as the fourth reserved forest of Travancore State with an area of 344 sq. miles. The growth of the population and resulting demand for more land for cultivation gradually reduced the forest area to 299 sq. miles which is the area of the Malavattur Forest Division at present.

The forests of the District have an important place in its economy. A good slice of the population is dependent on forests for livelihood. The great volume of timber that is extracted from the forests feeds the many industries of the District. There are many match, plywood and packing case industries at Perumbavur, Moovattupuzha, Thodupuzha, Kothamangalam, Alwaye and Ernakulam which depend on the forests of this Division for their raw materials. A good section of the population of Malayattur, Kaladi and Neeleswaram is engaged in making reed mats which are exported to places outside the District also. Another important feature is the export of the rare Rosewood logs which are extraordinarily big in size. They are of high demand in Italy and a good number of them are exported every year. A good log may fetch from Rs. 10,000 to Rs. 30,000.

Character of the Forests

As the name implies, this Division (Malayattur) is blessed with mammoth mountains and magnificent rivers. A major portion of the area is formed by the silt deposited by the rivers which supports luxuriant vegetation. The rainfall varies from 120" to 150" per year and this, coupled with the warmth of the atmosphere, promotes all types of forest growth. The main types of forests seen in the area are described below:—

Evergreen or Tropical Rain Forests

The whole of the Malayattur Reserve is more or less a continuous stretch of evergreen forests except small patches of deciduous areas sandwitched between them here and

there. The evergreen forests are characterised by a profusion of species arranged in an indefinitely stratified manner, there being 4 or 5 types of vegetation. Most of the trees found in this type are very tall and straight with very smooth barks, plank buttresses and leathery leaves which are not shed in summer. There is a profusion of the woody climbers and a general absence of grasses and bamboos in this type and the whole forest appears with the thick growth to be a stuffy gloomy vault.

Semi-evergreen type

This type adjoins the evergreen and is a transitional stage from the above to the deciduous class owing to change in the environment or human interference. This, however, forms a closed forest with a mixture of species of both evergreen and deciduous types.

Deciduous or Monsoon Forests

This type is dependent on the monsoons for its growth and development and is more homogeneous in structure and composition except in areas where it is affected by the environmental factors. Generally speaking, the forests are open and stunted in the crest of hills, improving gradually in density and height growth down the slopes and giving rise to swamp grass in water-logged areas. The mixed deciduous forests are composed largely of the commercial timber of South India.

Open Deciduous Forests

This type is generally seen in the minor reserves of the Division such as Nellappara, Illicharimala, Azhur, Mazhuvannur etc. The height of the trees varies from 40 to 60 ft., the canopy being somewhat open and density two-thirds of the normal. The soil shows great diversity in depth and texture and the under-growth is typically grass.

Kanni Elam Tract in Thodupuzha

This is the most elevated region of the Thodupuzha Reserve and is covered by evergreen. Since there is natural cardamom here, the area is leased out for regeneration and improvement of the existing crop.

Reed and Bamboo Areas

Pure patches of reed and bamboos have come up along the hill slopes, especially where hillmen have cleared large

areas of forests. Large quantities of reeds are extracted annually to meet the local demand and to feed the Paper Mills at Punalur. Malayattur is famous for its reed mats.

Forest Plantations

Forest areas suitable for raising plantations are being classified and planted with Teak, *Anjily*, Jack and Cashew and soft woods like *Elavu* and *Matti*. The total area of plantations of each species in this division and the volume and value of the total out-turn of timber and fuel in 1962-63 are given below:—

	Teak Plantation		Area in acres
	Total		**7,430.89**
1	Thattacad		1,091.86
2	Vettur and Mazhuvannur		185.75
3	Neriamangalam		31.80
4	Thencodam		953.06
5	Velur		2,072.72
6	Manakkad		75.00
7	Piralimattam		2.97
8	Sasthampara		150.00
9	Edavetti		33.50
10	Parapuzha		5.00
11	Malayattur		2,291.13
12	Ayyampuzha		233.00
13	Valiakandamkanam		46.00
14	Alkal		33.50
15	Ancherri		60.60
16	Chathamala		165.00
	Junglewood Plantations		
	Total		**476.15**
1	Neriamangalam		70.44
2	Kaliar		138.86
3	Mazhuvannur		75.00
4	Neriamangalam (Rubber)		0.75
5	Panoli		186.00
6	Thattacad (Themba)		5.00
	Softwood Plantations		
	Total		**98.75**
1	Thattacad		25.00
2	Neriamangalam		73.75
	Cashew Plantations		
	Total		**144.80**
1	Airapuram		139.80
2	Mazhuvannur		5.00
	Total out-turn of timber		1,002,419 cft
	Approximate value	Rs.	20,05,000
	Total out-turn of fuel		1,798 tons
	Approximate value	Rs.	18,000

MAJOR FOREST PRODUCE

Trees are the most valuable major forest produce and the most important of them are described here.

Tectona grandis (Teak)

The most important tree met with in this Division is *Tectona Grandis* (Teak). It is a timber *par excellence.* It is superior to every other kind of wood, being light, strong and durable, whether in or out of water. It is white-ant and fungus proof. It is a superior wood for ship building. The magnificent teak of the Idiyara valley appears to have been used for ships that fought the Battle of Trafalgar and brought victory to Nelson. The big teak pieces that were extracted by Mathoo Tharakan who lived in the latter half of the 18th century are still nestling in the bosom of the great river Periyar and are occasionally pulled out when the river bed logs are extracted. In hill tops it grows into gigantic size, sometimes measuring 7 to 8 ft. in diameter. Teak is put to numerous other uses such as construction of buildings, furniture-making, cabin work, panelling, carving, railway carriages etc. The beauty of the grain and the handsome figure of the Kerala teak are much admired. The average price varies from Rs. 10 to 25 per cft·

Dalbergia latifolia (Rosewood)

A valuable wood, it is heavy and close grained admitting of fine polish and is much used for furniture-making. In strength it excels teak. It is used for temple cars, ordnance work, tool handles, musical instruments, combs, walking sticks, boxes and agricultural implements. The timber can be cut into highly ornamental veneers which look their best when waxed. The timber was exhibited outside the country as complete dining room suite. The "Willingdon Table" presented by the Anamalai Trust was one single plank 8 ft. in width. It is a much priced wood and exported in large quantity to Italy, the price ranging from Rs. 10 to 40 per cft.

Diospyros assimilis (Malabar ebony)

The heart-wood is jet black, hard, heavy and most valuable. In strength it excels teak. It is used chiefly for ornamental work, furniture, inlaying, and mathematical instruments and rulers. This wood is extremely rare and

it is difficult to get heart-wood of more than 6 inches diameter. It is not attacked by insects and fungus and the value of the wood depends on its blackness, working quality and the high finish which it takes. The average price ranges from Rs. 20 to 30 per cft.

Santalum album (**Sandalwood**)

It is the most valuable wood in India. It is sold by weight and every portion of the tree which yields heart wood is utilised, the heart-wood from the root being the most useful. The wood is eminently used for carving and ornamental work. From the wood is produced the "Sandal paste" used by Hindus for religious ceremonies and daily worship. A valuable oil is distilled from the wood which is highly fragrant and medicinal. The fragrance increases as the tree advances in age. A pound of wood costs Rs. 2 to 3.

Hopea parviflora (**Thampagom or Kongu**)

The wood is close grained, heavy and yellow, becoming dark with age. It is used for bridges, and buildings of all sorts and occasionally for boats. It stands exposure when sawn into scantlings and is not attacked by white ants. It is in large demand for Railway Sleepers, piles, dug-outs and in dock yard for fenders.

Dipterocarpus indicus (**Karanjily**)

It is used outside Kerala for beams, scantlings, plankings, ceiling, floor boards, ship building, masts and spars. This species is used in very large quantities by Railways for waggon floor-boards. It is sometimes used for manufacturing 3-plywood for the chests. Dipterocarpus treated with creosol under pressure has been found the most suitable for piles and fenders. (Probable price Rs. 5 per cft.).

Artocarpus Hirsuta (**Anjilly**)

The wood which is moderately hard, yellowish brown, and durable seasons well and polishes well. It does not warp or crack. It is straight grained and easily worked, and is used for doors, panelling, joints, flooring, boat building, furniture, planks and house building. (Probable price Rs. 7 to 14 per cft.).

Pterocarpus marsupium (**Vengai**)

The timber is as strong as teak, heavier and less liable to split even after long exposure. When wet or unseasoned

it imparts a yellow stain. It is very hard and close grained. It seasons well but is not easily worked, though it takes a fine polish. It is also durable and strong. The wood is largely used in the construction of carts, boats, agricultural implements, tool handles and for ordnance work. "Gum-kino" is collected from the bark which is a medicine.

Terminalia tomentosa (Themba)

The heart-wood is dark brown, with darker streaks. It is close grained and difficult to saw. It is really an all-round timber for structural work. This timber is fashionable for furniture; if quarter-sawn it is particularly ornamental. It makes into a strong handsome 3-ply board. It is also used for carts, agricultural implements, mine props, Railway sleepers, Railway waggons and bedsteads. It is an excellent firewood and makes good charcoal. (Price from Rs. 5 to 7 per cft.)

MINOR FOREST PRODUCE

The most important of the minor forest products are described below:—

Fibres and Flosses

Fibres are yielded by all plants but only a few yield fibre suitable for industrial purposes. They are used in the textile industry and cordage. Twine binder, fish lines, ropes and cables are among the many kinds of cordage. Tough and stiff fibres are used in the manufacture of brushes and brooms. Pliable fibre is used for straw hats, baskets, chair seats and the like. Fibres are also used for stuffing mattresses, cushions etc., for caulking the seams in boats and casks and barrels and stiffening in plaster and as packing material and for the manufacture of paper. *Sterculia villosa, Helecteris isora, Grewia tiliaefolia, Spathalobus roxburghii, Calotropis gigantea, Antiaris toxicaria, Trema orientalis, Eriodendrom anfactnosum, Caryota urens,* Meusa spp., *Cocos nucifera, Eriodendrum onfactuosum, Bombax malabaricum* etc. are some of the species that yield fibre and floss.

Grasses

Grasses yielding fibre are useful for paper making, mats, cordage, basket making and similar purposes. Fibre grasses are *Fragrostis Cynosutiodis* (Darbha), *Saccharum arundancium* etc. *Andropagan muriatum* (Ramacham) is used for fans, door screens and aromatic scented mats, and

saccharum spontanum (thatch grass) is used for making brooms and mats and for feeding buffaloes.

Bamboos

The uses of bamboo are legion, for all parts are of value. The stems are extensively used for all types of construction. Bamboo is exported for use in the manufacture of furniture, fishing rods, implements of various kinds and other objects. Bamboo splits are used for baskets and brushes and as a paper material. It is very largely used in the erection of temporary buildings and the manufacture of mats and *thatties* . Bamboos are also used for fencing while the seed is a valuable food.

Reed

There is an immense demand for the culms for mats and basket making. The hillmen construct very neat huts out of the culms and leaves.

Canes

Canes are extensively used as props for plants, cables for ropes, for wicker work, baskets, chairs and couches.

Essential Oils

The oil obtained from the plant *Cymbopogon flexuosus* (Lemon grass) is very much superior to the Citronella oil of Ceylon or the Rusa of the Deccan. The rapidly increasing demand for this oil has led to an extensive cultivation of the species in the Taluks of this Division.

Fatty Oils

Fatty oils are stored in the seeds of plants and are associated with proteins. They are extracted from the following forest trees :— (1) *Hydnocarpus wightiana* (Marotti) (2) *Sarcostigma Klenis* (Odal) (3) *Samadera indica* (Karinjotta) (4) *Schleichera trijuga* (Poovam) (5) *Bassia longifolia* (Illupai) (6) *Pongamia Glabra* (Punha) (7) *Callophyllum inophyllum* (Punna) (8) *Vateria indica* (Vella Pyin) (9) *Mesua ferrea* (Nanku) (10) *Mimusops elengi* (11) *Celastrus paniculata* (Killithinni Pinny) and (12) *Bombax malabaricum* (Kapok tree)

The other Minor Forest Produces are the following:— (1) *Terminalia Chebula* (Kaducka). (2) *Terminalia belerica*

(Tanicka) (3) *Phyllanthus emblica* (Nelli) (4) *Semicarpus anacardium* (Ink nut trees) (5) *Sapindus bifoliaters* (Soap nut tree) (6) *Acasia concinna* (Cheeyacka) (7) *Acacia intsia* (Incha) (8) *Strychnos nuxvomica* (Kanjiram) (9) *Casia fistula* (Konna). (10) *Sida cordifolia* (Kurumthotty). (11) *Zingiber Zerubet* (Kolinchy) (12) *Asparagus recemora* (Sathavely) (13) *Hemidesmis indicus* (Narunandi) (14) *Holarrhena antidycentriaca* (Kodagapala) (15) *Elettaria cardamomum* (Cardamom Elakka) (16) Honey and wax. (17) Hides, horns and ivory (18) Mica (19) Kalpal (20) Kalmadam etc.

The volume and value of the total out-turn of important forest produce of the Division for 1962-63 are given below.

Name of produce		Quantity	Value in Rs.
Timber	Cft.	1002419	20,05,000.00
Fuel	Tons	1798	18,000.0
Reeds	"	6728	4,17,059.00
Rattans	Nos.	72306	4,304.00
Bamboos 30'	"	109604	1,09,604.00
Bamboos 20'	"	4525	271.50
Green manure leaves	H.L.	2077	124.62
Junglewood posts	Nos.	143	35.75
Laterite	Cft.	2600	32.50
Metal	"	1000	50.00
Vakka	Nos.	4888	1,222.00

Forests and Agriculture

The plantation coupes where teak and other species are grown are leased out for cultivation annually and the lessees cultivate these areas with paddy, tapioca and other cereals without detriment to the teak plants.

Elephant Capturing

Elephants are captured in the Kodanad Range by digging pits in the forests. Generally 8 to 12 elephants are captured annually. The elephants are trained and then disposed of in auction sales.

Protection of Forests

Those who violate the Forest Act and Rules are proceeded against as per rules in force and regular cases are booked against them. Generally 300 to 350 cases are booked annually of which about 250 are charged before the courts

and the rest decided departmentally by accepting compensation.

Communications

There is a total length of 32 miles earth gravelled road within the forests of this District and in addition there are 4 bridges. These roads and bridges are maintained annually. The details of Rest Houses and Forest Bungalows are given below:—

1 Forest T. B. at Kodanad

2 Forest Rest House at Velur in the Velur plantations near Udumbannur.

3 Forest Rest House at Chully, near Ezhattumughom.

4 Forest T. B. at Neriamangalam.

5 Forest Bungalow at Mallana in Kodanad Range.

Floods, Famines etc.

The District has been generally free from natural calamities of any great magnitude. Even though monsoon inundations occur frequently in the low lying tracts, destructive floods are very rare occurrences. The most important floods that occurred in the past were those of 1882, 1907 and 1924. Since 1924 there have been no serious floods till 1961. The floods of 1961 were at their peak from July 4, 1961 to July 15, 1961. Water level in the Periyar river at Alwaye rose up to a point only 3½ ft. below the high flood level of 1099 K. E. (1924). All the low-lying areas in Parur, Alwaye, Kunnathunad, Kanayannur and Cochin Taluks and a portion of a village in Moovattupuzha Taluk were affected by floods. A total area of 31,153 acres of paddy cultivation was completely or partially damaged and 361,845 persons were affected. There were 12 cases of death and five cases of injury not resulting in death on account of the floods. 248 relief centres were opened in different villages. 44,917 persons were evacuated and temporarily accommodated in different relief camps.

Government supplied rice free to the affected families at the rate of one *Edangazhi* per family per day in addition to one pound of tapioca chips. In addition, rice was also supplied to the affected families who had no access to relief centres but had gathered in neighbouring houses which were considered safe. A total quantity of 5,805 bags of

rice costing Rs. 1,85,716 was distributed. A sum of Rs. 1,77,042 was distributed as financial assistance to 17,990 families whose houses were partially damaged and Rs. 99,936 to 2,942 families whose houses were completely destroyed by floods. Thus a total amount of Rs. 2,76,978 was distributed as financial assistance.

A sum of Rs. 19,200 was distributed as loan to agriculturists for the improvement of land and agricultural purposes. The Marwari Association, Calcutta, the Panchayats, Government officials, political parties etc., also rendered much help during the floods.

Sea Erosion

Another natural calamity which seriously affects the coastal areas of the District is sea erosion. Sea erosion on the coastal areas of the District, often a common feature in the past, has now become an annual calamity, spreading fear and anxiety in the minds of the residents of the locality and causing havoc to property. It is generally commensurate with the annual south-western monsoon when the Arabian Sea gets turbulent and its waves dash against the shores with a sort of vindictive violence, destroying everything that lies in its path. The erstwhile Government of Cochin constructed a granite bund about 8 feet in height and nearly two miles long from Vaipin to Ochanthuruthu, along the sea-coast, more than thirty years ago. That bund remains in tact even after a lapse of 30 years and has saved hundreds of families and their property from total annihilation.

In recent times, the worst affected areas in the District are the villages of Chellanam, Palluruthi, and Njarakkal, the latter being in the Vaipin Island. These places are thickly inhabited, and are rich in coconut gardens and paddy fields. The main occupation of the people in these parts is agriculture. The extent of damage actually caused covers a distance of half to one furlong. The damage caused varies each year according to the turbulence of the sea. No human lives are usually lost, but a number of huts are washed away and a number of coconut trees uprooted. In order to avert the danger, the Irrigation Department is constructing a sea wall with groynes as a protective measure in consultation with the Central Water Power Research Station, Poona. The sea wall has been

constructed to a length of 9 miles with 123 Nos. of groynes at Chellanam Island. The length of the sea coast now under protection in the Vaipin Island is 7½ miles. Sea Wall for a length of 3½ miles with 70 groynes has been completed in this area. Sea wall for a length of 2 miles is being constructed. 21 Nos. of groynes are also under construction.

The expenditure incurred upto the end of 1962-63 came to Rs. 1,55,46,359. The State Government keeps a close watch to keep the sea walls intact and breaches, if any, caused due to the fury of the waves, are repaired then and there.

Land-slides

An unhappy feature of the Thodupuzha Taluk, especially in the eastern villages, is the prevalence of land-slides every now and then. The exact reason for these disasters is not yet known. When it rains heavily for days together, which is not an uncommon feature in the forest areas, land slides from the top of mountains with a thunderous noise. The water and rocks which are forced out as a result of such land-slides (locally called *Urulpottal*) bury everything in their onward rush. The latest such disaster took place in the year 1958 and it took a heavy toll of lives while the damage caused was enormous.

APPENDIX I

Distribution of Holdings*

Size of holding		Wet land	Dry land	Total
Total		**106,481**	**181,700**	**234,982**
Below 5	cents	2,035	9,592	9,409
5—10	"	3,634	9,532	9,908
10—25	"	13,968	27,063	32,398
25—50	"	19,813	32,324	40,423
50—75	"	13,697	22,745	28,841
75—100	"	9,454	15,814	19,883
100—150	"	12,834	20,171	26,637
150—250	"	12,024	18,551	25,485
250—500	"	8,477	13,582	20,998
750—1000	"	1,717	2,106	3,518
	Acres			
10.00—12.49	"	911	1,156	2,015
12.00—14.99	"	625	776	1,321
15.00—17.49	"	480	597	1,030
17.50—19.99	"	340	445	745
20—25	"	444	599	1,020
25—30	"	284	400	716
30—35	"	219	253	471
35—40	"	150	190	361
40—45	"	117	185	268
45—50	"	93	164	221
50—60	"	130	163	296
60—75	"	149	186	321
75—100	"	130	179	310
100—150	"	119	152	294
150—200	"	64	70	153
200—300	"	49	73	148
300—500	"	35	41	81
500—1000	"	9	17	61
Over 1000	"	3	3	17

APPENDIX II

Taluk-wise Distribution of Livestock, 1961 Livestock Census

Taluk	Cattle	Buffaloes	Sheep	Goats	Fowls	Ducks	Others
I Parur	24,716	1,497	1	14,682	1,23,110	6,114	41
II Alwaye	43,724	5,711	1	15,498	1,80,312	4,613	736
III Kunnathunad	58,910	5,209	193	20,496	1,80,102	4.467	183
IV Kayanannur	39,273	2,026	4	27,054	1,92,863	18,696	397
V Cochin	11,847	681	43	15,366	1,28,564	8,544	54
VI Muvattupuzha	78,825	4,660	5	34,350	2,57,790	1,953	1020
VII Thoduphzha	43,372	1,144	68	17,361	1,29,767	770	874
Forest areas	2,569	104	..	443	9,127	..	..

*The table pertains to the Trichur District before the reorganisation of States, in 1956.

CHAPTER V

INDUSTRIES

Place of the District in the Industrial Economy of the State

The Ernakulam District may verily be called the hub of industrialisation in Kerala State. With the availability of easy and cheap means of transport by road, rail, backwater, sea and air, superior advantages in regard to raw material, fuel and skilled labour, plentiful supply of water for industrial purposes, easy access to electric power stations etc., this District, especially the Alwaye-Ernakulam area, has been the seat of major industrial units for several decades. Any industry with an eye on the export market would prefer a location in this District because of its proximity to the Cochin Harbour. So also is the case with industries whose raw materials have to be imported. Cheap backwater transport facility and a net-work of motorable roads add to the facilities of communication and brighten the industrial prospects of the region. The possibility of inter-firm utilisation of products and by-products is also another factor that has contributed to the concentration of factories in the region. The existing large-scale chemical industries in the Eloor area such as the Fertilisers and Chemicals, Travancore, the Travancore-Cochin Chemicals, the Hindustan Insecticides, the Indian Rare Earths, etc., have helped in creating a chemical engineering complex in this region which bids fair to become one of the biggest of its kind in the country. When the Oil Refinery and the Shipyard come up at Cochin the entire region will be an outstanding industrial complex.

Old Time Industries

Long before the District shot into prominence in the industrial map of the State, some industries based on agricultural products flourished in this area on a domestic or cottage basis. The most important of these were cotton weaving, coir, mat making and oil extraction. Cotton

weaving has been the hereditary occupation of a certain caste called Chaliyans distributed throughout the District. They stood unrivalled in the weaving of particular varieties of clothes specially favoured by the people of Kerala. The manufacture of yarn, ropes and mattings out of coir was an industry which flourished in the areas adjoining the sea and backwaters. Cochin has been for long exporting coir yarn and coir products to many parts of the world, chiefly to the United Kingdom and the countries of Europe. Mat making , though an old time industry, had not been so well developed as it should have been. However, the coconut oil industry took the first place among the old time industries of the District. All the 10 power mills which were at work for the extraction of coconut oil in the erstwhile Cochin State in the early decade of this century were in the Cochin and Kanayannur Taluks.[1] Oil of a high quality which went under the trade name of "Cochin Oil" had a good market in foreign countries. In addition to coconut oil the extraction of oil from lemon grass (*Pul Thailam*) was an industry carried on mainly in Mattancherri and its neighbourhood, though on a limited scale. Another old-time industry was the extraction of salt from sea water by solar evaporation. The centre of this industry was located in the Vaipin Island. Toddy-drawing, husking of paddy, leather work, bell-metal work and gold and silver work may also be mentioned among the other old time industries of the District. Almost all these industries continue to be carried on today.

POWER

Thermal Power Stations worked with diesel were opened in 1938 at Kalamasseri, Mattancherri and Ernakulam, the last two under licensee ownership. The District at present derives its electric supply from the Poringalkuthu and Sengulam Hydro-Electric Stations, details of which can be had from the Trichur and Kottayam District Gazetteers respectively. There are 66 K. V. Sub-stations at Kothamangalam, Alwaye and Vyttila. A 110/66 K.V. Sub-station at Alwaye is under construction. There were 348 electrified towns and villages in this District as on April 30, 1964. At the same time there were 25,856 consumers and 10,660 street lights. Electricity distribution

1. *Cochin State Manual*, C. Achutha Menon, p. 269.

in Ernakulam and Mattancherri towns is done by private licensees, the Cochin State Power and Light Corporation Ltd., in the former and Cochin Electric Company Ltd., in the latter. Alwaye is the most important power consuming centre in this District as well as in the State. The industries run on electricity here include Aluminium, Fertilisers, Chemicals, Rare Earths, Insecticides, Glass, Tile works, etc. Supply of electricity for agricultural purposes or for small scale industries is also being given top priority. Tracts of paddy land in the Kunnathunad and Parur Taluks are irrigated from the Periyar river by means of electric pumps. In the rural areas of the District, power is used for rice milling, pounding and crushing of oil seeds.

Idikki Hydro-Electric Project

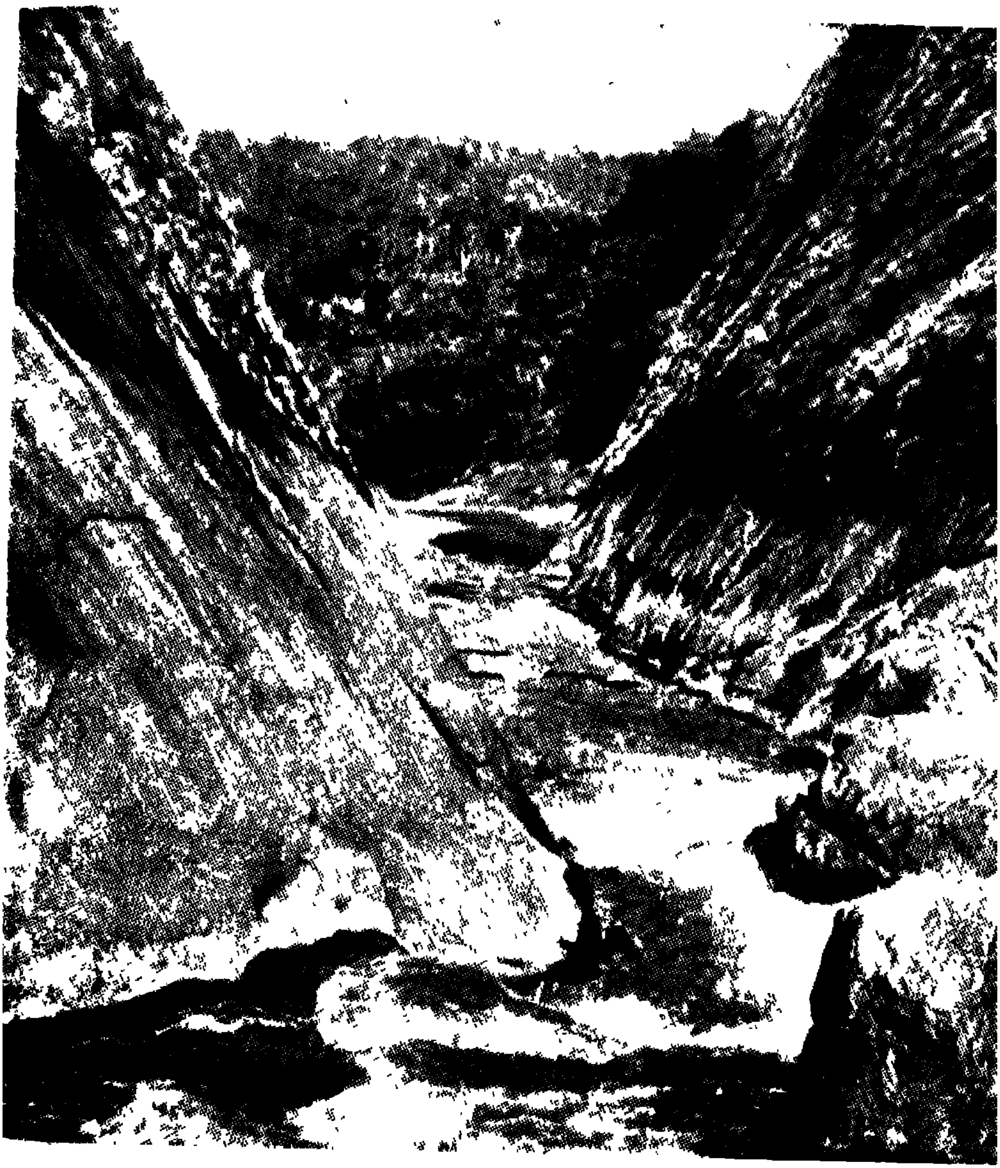
The Idikki Hydro-Electirc Project, the biggest of its kind planned in the State, lies in the Ernakulam District. It is situated across the river Periyar at the boundary of Udumbanchola Taluk of Kottayam District and Thodupuzha Taluk of Ernakulam District. Designed for an installed capacity of 8 lakh k.w. with five generating sets, it will also provide irrigation benefits to an area of 1,25,000 acres in the Thodupuzha, Meenachil and Vaikom Taluks.

The earliest reference to Idikki Hydro-Electric Development is in the report of an Italian Engineer F. J. Jacob, dated 30th April, 1919 which reads as follows:—"This is on the Periyar river and is about 6 miles above the Mudirapuzha junction (vide Survey of India Sheet No. 58 C/13.) The catchment area is about 300 sq. miles and the rainfall about 300 to 400 inches per annum. The vertical drop at the fall is, however, only 30 ft. But from the fall to the Mudirapuzha junction about 6 miles the bed fall is 130 feet per mile on a total of 775 feet, the minimum discharge of the river being about 150 to 180 cusecs". Later another Engineer from Italy, Ing. Angelo Omedeo, investigated the scheme from the available records and reported that at 385 ft. head and 1,320 cusecs discharge the mean yearly output will be 32,250 k.w. Both suggestions were based on utilising the fall in the course of the Periyar itself and did not contemplate the diversion of the waters to another catchment to obtain a higher fall. The discovery of Idikki dam site is, however, associated with the name of

W.J. John, Superintendent, Malankara Estate (a planter who had an extraordinary intuition for engineering) who during one of his hunting expeditions, accompanied by Karuvallayan Kolunhen (a hill tribe hunter) in the year 1922, while crossing the river near the V shaped gorge (1870.00 above m.s.l.) between the massive exposed rocky pinnacles, Nellichoramala (2752.00) and Idikki Mala (3033.00) locally known as Kuravan and Kurathi, is said to have been struck by the idea of the construction of a dam at Idikki. He brought to the notice of the Government the importance of the place so far as its utility for power development was concerned. Periyar has carved for itself at Idikki a deep and narrow gorge out of unspoiled hard granite rock without faults or fissures. The site is about 35 miles downstream of the existing Mulla Periyar Dam and about 1½ miles upstream of the confluence of Periyar and Cheruthoni. A relatively small wedge at this spot will create a huge reservoir ringed by the high hills. The valleys of Cheruthoni and Periyar at the upper reaches of the dam sites are so shaped that a given height of the dam will create perhaps the most capacious artificial lake in the western ghats with a water spread of 21 sq. miles. The idea that lay buried in the files for about a quarter of a century was taken up for detailed investigation in 1957 by the Central Water and Power Commission.

Idikki power development envisages the construction of three dams—the main dam across Idikki, another spillway dam across Cheruthoni and a third flanking dam at Kulamavu to form a combined reservoir to impound 59,000 M.Cft. of water spreading over an area of 21 sq. miles from a catchment of 250 sq. miles below the Periyar Dam. The water from the lake will be diverted towards the west through a tunnel extending up to the Nadugani hills whence penstock pipes will lead them to a Power House proposed at the foot of the Nadugani hills at Moolamattom for generating power and flow into Nachar in the Moovattupuzha basin. There is also the possibility of producing more power from the same generating stations by diverting the water from some neighbouring catchments to Idikki reservoir and these proposals are under investigation.

The Idikki tail water will irrigate about 1.25 lakhs acres of land lying in the Thodupuzha, Moovattupuzha, Kanayannur, Meenachil, Kottayam and Vaikom Taluks.



IDIKKI GORGE

50,000 acres of low-lying Kari lands in the Vaikom, Kottayam and Kanayannur Taluks will be immensely benefited due to the fresh water supply and will be relieved from the danger of salinity to ensure two stable crops.

The concrete arch dam proposed at Idikki gorge will have a length along the axis of 1,260 ft. with F.R.L. at 2,385.00 above m.s.l., height above deepest foundation of 545 ft. and a maximum base width of 217 ft. The width of the river at the bed is only 35 ft.

The Cheruthoni dam located about 1½ miles upstream of the confluence of Cheruthoni and Periyar will be of straight solid gravity type with masonry, having top length of 1,950 ft. and height above deepest foundation of 420 ft. Spillway for the safe discharge of flood waters will be located in this dam and the downstream face at one flank will be curved to conform to the flow of water. It is proposed to provide 9 numbers of 50′ x 40′ crest gates to discharge a maximum flood of 2 lakhs cusecs.

The auxiliary dam will be in a streamlet called Kilivalli thodu near Kulamavu and will be rolled fill type 236 ft. high and of length 1,050 ft. The bottom width at the deepest section will be 1,235 ft. A saddle dyke of height 72 ft. and length 800 ft. is also necessary near Cheruthoni.

Water from the storage reservoir will be conveyed to the Surge tank located at the western slope of the Nadugani Hill through a tunnel of length 4½ miles starting from Sevagan thodu and dia. 20′ designed for a peak discharge of 4,800 cusecs. From the Surge Tank 4 low pressure steel lined tunnels, 8.75′ dia. and 340′ long, will lead the water to the valve house and then each low pressure tunnel bifurcates at the valve house to form 8 numbers penstocks each of length 5,615 ft. and 6.25 inside dia. aligned down surface slopes to the power house at the foot of the hill. The floor level of the power house will be 194.00 above m.s.l. thus commanding a gross head of 2,170 ft. Eight generating units of 100 m.w. each are proposed to be installed for the ultimate generation of 800 m.w. under 30% load factor, of which only 5 units are proposed in the first stage for generation under 60% load factor.

The total cost of the project is estimated to be 49.60 crores of rupees. Preliminary operations such as detailed surveys, preparation of working estimates, formation of

about 80 miles of new roads to main work sites, construction of camps, etc., have been started. Large colonies are being set up for the project staff at Moolamattom, Kulamavu and Idikki with modern amenities such as water supply, street lighting, sanitary arrangements, schools, community halls, club buildings, child welfare centres, dispensaries and a fully equipped hospital.

HEAVY INDUSTRIES

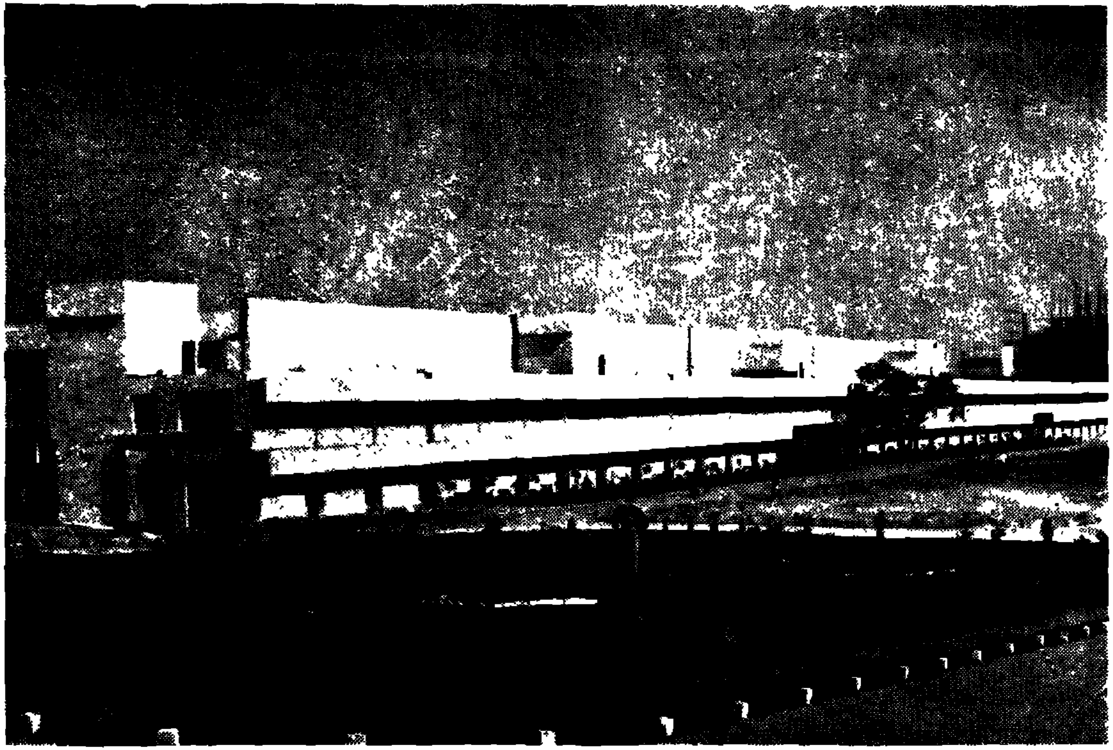
Ernakulam is the only district of Kerala which can boast ot a few projects in the field of heavy industries. These are ship-building, manufacture of machine tools and oil refinery. Available information on each of these is given below.

Ship Yard, Cochin

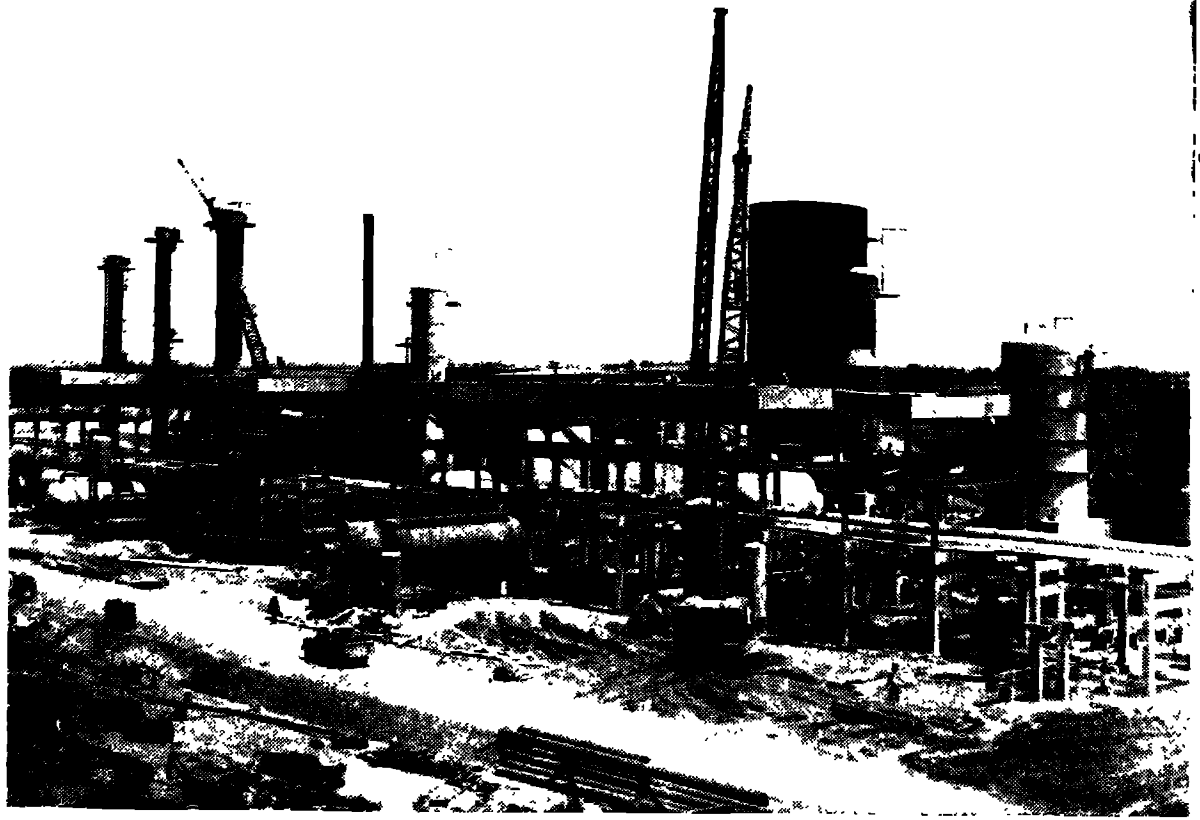
This is the most important heavy industry to be started in Kerala with the help of the Central Government during the Third Plan. The total capital investment in the project is estimated at Rs. 20 crores. Under an agreement entered into between the Government of India and the Mitstubishi Heavy Industries (Japan) a Shipyard will be set up at Cochin and it will comprise, among other things, of a dock of 30,000 deadweight tons and a shipway of 15,000 deadweight tons. The construction of ships is expected to commence at the Shipyard by the beginning of the Fourth Plan and its ultimate manufacturing capacity will be 6 to 8 ships per year, almost double the capacity of the Shipyard at Visakhapatnam. Apart from the direct benefits accruing from the location of the Shipyard at Cochin, it would lead to the establishment of about 200 ancillary industries in the area. It is expected that the location of the ship building yard in Kerala will help considerably in lifting the State economy out of its present depressed state.

Hindustan Machine Tools, Ltd., Kalamasseri

The Hindustan Machine Tools' fourth machine tool project set up in Kerala is located on a plot of 900 acres at Kalamasseri, near Ernakulam. The total investment over the project is expected to exceed Rs. 10 crores including the cost of construction of amenity buildings, township, etc. The factory when completed would provide employment for about 3,000 persons in the first phase. All the



TECHNICAL ADMINISTRATION BUILDINGS, HINDUSTAN MACHINE TOOLS, KALAMASSERI



COCHIN OIL REFINERY UNDER CONSTRUCTION AT AMBALAMUKAL

funds required for the erection of the unit will be found from internal resources of the Hindustan Machine Tools in Bangalore. The Kalamasseri factory will manufacture the entire lathe family including general purpose lathes, high precision lathes and turret lathes, automatics etc. The plant formally started production on October 2, 1964.

Oil Refinery, Cochin

A great step forward in the industrialisation of Kerala State has been taken with the decision to set up an Oil Refinery in this District in the public sector. The site selected for the location of the Refinery is Ambalamukal in Kunnathunad Taluk. The Government of India, Phillips Petroleum Company, U.S.A., and Duncan Brothers & Company Limited, Calcutta, have joined hands in setting up the new Refinery. This project, the first venture of its kind in which public and private sectors and a foreign collaborator are associated, marks a major effort towards national self-sufficiency in oil. The tripartite agreement signed in New Delhi on 27th April 1963 between the Government, Phillips and Duncans provides for the establishment of an oil refinery at Cochin which is expected to go into production in 1965-66. This Refinery will initially produce 2.5 million tons of products per annum and would be capable of expansion up to 3.5 million tons. The authorised capital of the Company will be Rs. 17 crores of which Rs. 7 crores will be issued and paid up. The Government of India will hold 51% share, Phillips 25% and the balance of 24% by Duncans and Indian investors. Phillips Petroleum and Duncan Brothers will raise a loan of Rs. 10 crores in dollars from independent sources in the U.S.A., the cost of the project being estimated at Rs. 17 crores. The work on the project is in progress. The Refinery is expected to go on stream in February 1966.

LARGE SCALE INDUSTRIES

Ernakulam has a larger number of large scale industrial concerns than any other District of Kerala. Some of the most important industrial concerns like the FACT Ltd., the Travancore-Cochin Chemicals Ltd., Tata Oil Mills, Ernakulam, Indian Aluminium Company Ltd., Alwaye' Premier Tyres Ltd., etc. are located in this District. Brief accounts of the most important of the large scale industrial concerns are given below.

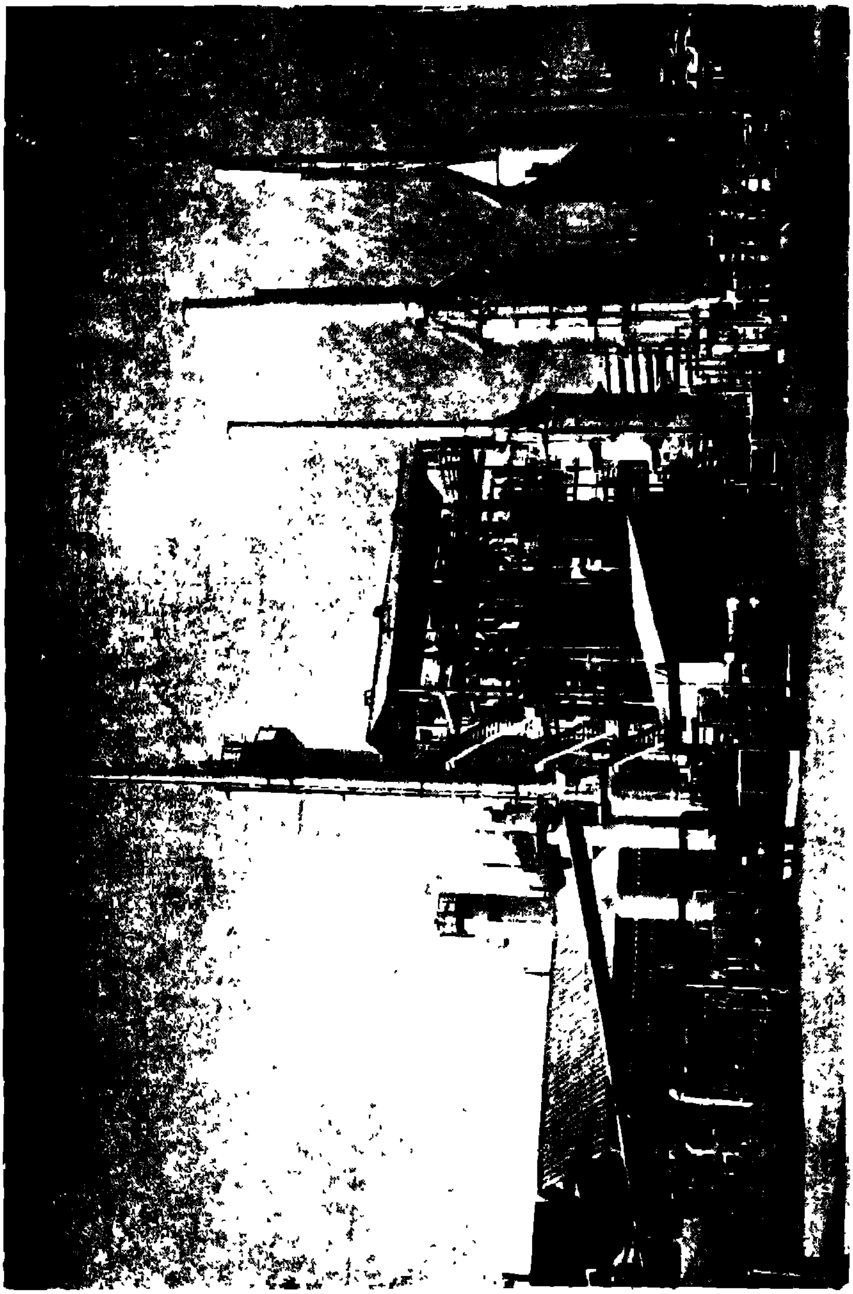
Fertilisers and Chemicals, Travancore, Ltd., Eloor

The Fertilisers and Chemicals, Travancore, Limited (FACT), the mother of industries in the area, came into being at a time when there was acute food shortage in the country. It was planned, erected and commissioned during the years 1944-1947 thanks to the foresight and initiative of Sir C.P. Ramaswamy Ayyar, the then Dewan of Travancore. The factory is ideally located at Eloor, near Alwaye, on the banks of the Periyar river. Such factors as the availability of raw materials, fuel, power and skilled workers, nearness to Cochin Port and abundance of water supply induced the location of the factory at its present site. It is twenty miles by water from the Port of Cochin and a similar distance from the Malayattur forests, the source of the principal raw material—firewood. The Alwaye Railway station is just eight miles from the FACT. All the raw materials are brought to the factory by water and the finished products are either sent out by water to Cochin or by road to Alwaye.

The FACT is a public limited company. Its administration is vested with a Board of Directors with thirteen members of whom three are nominees of the Kerala Government. In July 1963 the fixed capital of the company which included land, building, plant, machinery etc., came to Rs. 8,01,87,472 and working capital which included raw materials, finished products, cash etc., to Rs. 3,30,15,395.

First in the field, the FACT has, since its inception, many other firsts to its credit. It put on the market the first Indian made Ammonium Sulphate on a commercial scale. The wood-gasification process was first put to commercial use by this company when, even in the United States at that time, it was only in the laboratory stage. It was the first to manufacture high synthetic-grade ammonium chloride, an important industrial chemical with many applications, by using hydrochloride available from the nearby caustic soda producer unit (T.C.C.). The oil gasification plant, installed by the FACT in its second stage of expansion, was the first of its kind in the country.

Under a multi-phased expansion programme drawn up in 1954, the FACT has been making phenomenal progress in recent years. The programme was planned in three stages. The first stage of expansion which was completed in 1959-60 established a capacity of 66,000 tons of ammonium



sulphate and 16,500 tons of ammonium phosphate in addition to the existing capacity of 44,000 tons of super phosphate and 8,000 tons of ammonium chloride. An important feature of this stage, was the developing of ammonium sulphate (16-20 grade), out of by-product gypsum. A leading supplier of chemical plants in the U.K. has agreed to pay royalty for utilising the know-how developed by FACT in designing their plants. Even before the first stage of expansion was completed, the company had taken up the second stage. This involved the replacement of the existing uneconomic wood gasification plant by a modern oil gasification plant employing the "Texaco" process of partial oxidation of oil. As against the wood gasification plant capacity of 40 tons of ammonia a day, the new plant was designed to supply sufficient hydrogen to make 80 tons of ammonia a day.

More ambitious than these is the third stage plan, envisaging an investment of Rs. 11 crores, of which Rs. 8 crores would be provided by the Government of India—Rs. 4 crores as equity capital and Rs. 4 crores as loan. The balance is to be met from the company's own resources. With foreign exchange to the tune of Rs. 4.5 crores released by the Centre, orders have already been placed for all the equipment. The programme is expected to be completed and the full benefits of the expansion to be realised before the end of the Third Plan period.

The third stage plan involves the installation of another oil gasification plant and a tonnage oxygen plant to produce an additional 140 tons of ammonia a day, besides a 450-ton a day sulphuric acid plant, a 300-ton ammonium phosphate plant along with a 100-ton phosphoric acid plant, a 300-ton ammonium sulphate plant based on the utilisation of by-product gypsum and an additional unit for the manufacture of 50 tons of ammonium chloride a day. The programme aims at raising the capacity of nitrogen from 30,000 to 70,000 tons per annum, of ammonium sulphate from 1,00,000 to 2,00,000 tons, of ammonium phosphate from 33,000 to 1,35,000 tons and of ammonium chloride from 8,000 to 25,000 tons. The production of over twenty grades of quality mixtures would go up from the present one lakh tons to 3,50,000 tons per annum by 1965. It is worth recalling that the company started with only a capacity of 44,000 tons of ammonium sulphate in 1947.

The FACT consumes every year about 240 million k. w. h. of electricity. The main raw materials used are

Furnace oil, Firewood, Sulphur, Rock Phosphate and Hydrochloric Acid. Furnace oil is supplied by ESSO Standard and Indian Oil Company and it is mainly imported from outside. The entire lot of firewood is got from the Malayattur forests nearby. Sulphur is imported from U.S.A., and Rock Phosphate from outside Indian sources, Eg., Morocco, Jordan etc. Hydrochloric acid is obtained from the nearby Travancore-Cochin Chemicals. The quantity and value of the raw materials used during the period 1957-61 are given in Table I.

TABLE I

Quantity of Raw Materials used and their Value from 1957 to 1961

Raw material	Year	Quantity (Metric tons)	Value (Rs.)
Furnace Oil	1957	10,487	14,84,249
	1958	13,730	19,63,736
	1959	9,661	13,75,747
	1960	11,780	16,81,103
	1961	13,894	19,10,778
Firewood	1957	63,187	17,87,508
	1958	83,495	23,34,821
	1959	68,484	21,32,889
	1960	75,509	24,28,194
	1961	84,259	27,72,023
Sulphur	1957	12,027	30,61795
	1958	14,605	34,26,291
	1959	18,302	32,69,629
	1960	19,030	29,61,040
	1961	23,675	36,83,577
Rock Phosphate	1957	10,605	13,83,844
	1958	10,929	10,83,056
	1959	21,224	19,12,835
	1960	23,415	21,40,760
	1961	26,558	25,02,097
Hydrochloric Acid	1957	3,750	1,95,589
	1958	4,789	2,50,012
	1959	3,784	1,97,820
	1960	4,265	2,60,254
	1961	5,118	2,74,453

A statement showing the quantity and value of the principal products manufactured by the FACT during the same period is also given in Table II.

TABLE II

Quantity and Value of Principal Products manufactured from 1957 to 1961

Principal Products	Years	Quantity (Metric tons)	Value (Rs)
Ammonia	1957	264	5,30,032.00
	1958	384	6,93,888.00
	1959	451	8,07,741.00
	1960	481	8,80,230.00
	1961	567	9,78,693.03
Sulphuric Acid	1957	320	60,480 .00
	1958	487	86,199.00
	1959	1,211	1,88,916.00
	1960	1,802	2,48,820.16
	1961	3,300	4,55,598.00
Sulphate	1957	22,159	79,77,240 .00
	1958	33,854	1,22,55,148.00
	1959	29,412	1,04,41,260.00
	1960	39,815	1,34,07,303.10
	1961	51,109	1,70,39,740.60
Super Phosphate	1957	17,347	36,25,523.00
	1958	18,268	37,26,672.00
	1959	35,252	67,60,384.00
	1960	39,584	70,26,951.68
	1961	29,185	48,91,406.00
Ammonium Chloride	1957	5,279	31,83,237.00
	1958	6,742	41,53,072.00
	1959	5,348	32,99,716.00
	1960	6,064	37,12,562.72
	1961	7,501	45,10,126.27
Mixture	1957	2,144	7,67,552.00
	1958	1,661	6,02,943.00
	1959	3,047	11,45,672.00
	1960	7,039	25,98,094.90
	1961	19,516	69,37,157.00
Oleum	1958	915	1,40,910.00
	1959	1,467	1,92,177.00
	1960	1,933	2,23,126.19
	1961	1.767	2,04,512.58
Sulpher Dioxide	1960	1,098	7,90,560.00
	1961	1,174	8,78,997.28
Ammonium Phosphate	1961	12,897	68,51,660.22

The company employs a team of agronomists, about fifty in number, for field work in South India, principally in Kerala, to undertake, free of cost, soil testing, supervision of manuring, etc. It runs a Research and Technology Department and conducts a programme of training for engineers, chemists and artisans. Since 1961 when the Government of Kerala entrusted it with the distribution of Government fertilizers, a distribution network of over 54 central depots and 1,400 selling points has been built up in Kerala of which about a thousand are run by service co-operatives. The principle followed is that every farmer should get his requirements within three to four miles of

his farm. Practically all the crops raised in Kerala are covered by FACT demonstrations. Similar demonstration plots have already been started in Madras and it is proposed to extend this service to Mysore and Andhra. Over 10,000 farmers in Kerala have received direct training in the use of fertilisers under the scheme of conducting fertiliser festivals.

As regards labour, the present arrangements provide for individual and group incentives and for an annual profit-sharing bonus system. The wages and other benefits paid in cash to the employees who numbered about 2,300 amounted to Rs. 70,53,099 in 1962.

Travancore-Cochin Chemicals (Pvt.) Ltd., Alwaye

The setting up of a Caustic Soda Chlorine unit in South India was conceived as early as 1947 and a partnership was formed between the Fertilisers and Chemicals, Travancore Ltd., the pioneer manufacturers of heavy chemicals in the State, and the Mettur Chemical and Industrial Corporation Ltd., the pioneer manufacturers of Caustic Soda and chlorine products in South India. This partnership was called the Travancore and Mettur Chemicals and in 1947 a portion of the machinery for the Caustic Soda Plant was ordered. The cost was approximately Rs. 32 lakhs. Subsequently, due to difficulty in raising further funds, the project was at a standstill and efforts were being made by the partners to sell the machinery to other producers. By 1949-50 the Government of India wanted to set up a Rare Earths processing factory in the State and the then Travancore Government undertook to help in the setting up of the Caustic Soda Factory to supply the chemical requirments of the Rare Earths Factory. For this purpose a new company, viz., the Travancore-Cochin Chemicals Ltd., was formed in 1951, the Kerala State Government holding Rs. 40 lakhs worth of shares, FACT Rs. 25 lakhs and M.C.I.C. Rs. 10 lakhs. An area of 12 acres of land was leased by the State Government and the project was started in 1951. Trial operations commenced by the end of 1952. The plant went into commercial production on 1st January 1954.

The factory is located on the banks of the Periyar river at Eloor, near the factory of the FACT Ltd. The management vests in the Board of Directors comprising 6 members of

whom 3, including the Chairman, are nominated by the Government, 2 by FACT and 1 by M.C.I.C. The day-to-day management is done the Managing Agents Messrs. Seshasayee Brothers (Travancore) Private Ltd., working under the control of the Board of Directors.

The products of the factory are mainly Caustic Soda Chlorine, Hydrochloric acid and Bleach liquor. The originally installed capacity of these chemicals wa- follows:—

Caustic soda liquor	..	20 tons per day
Caustic soda solid	..	6 „
Hydrochloric acid	..	18 „
Bleach liquor	..	2 tons of equivalent chlorine

After reaching full production in 1956-57 the factory expanded considerably and in addition to the increase in production of Caustic soda, the setting up of a plant for the manufacture of further chemicals like sodium hydro-sulphate was undertaken. The capital of the company was raised to Rs. 100 lakhs. By 1961-62 the annual output of Caustic soda was 15,000 tons. In the coming years a steep rise in the demand for caustic soda is expected. The all-India target for production of caustic soda by the end of the Third Plan period is 340,000 tons per year. The Travancore-Cochin Chemicals is planning to expand its capacity to 100 tons per day by 1965-66, which is fully justified in view of the expected trends in demand. Production of caustic soda is a power intensive process, and power requirements for the additional output are expected to be of the order of 8,000 KWH. Along with increase in caustic soda, output of chlorine would also increase considerably.

The Travancore-Cochin Chemicals was the first major factory in India to produce Caustic soda of Rayon grade purity and the first to employ the new process, viz., the Mercury Cell process for the manufacture of Caustic soda. Similarly, for Sodium Hydrosulphate manufacture the new amalgam process is being used, the Travancore-Cochin Chemicals again being the first plant in the country to use this process. Moreover, for producing solid Caustic soda the latest 'cascade' process, using nickel clad steel pots, is employed whereby the product manufactured is of a very high degree of purity. This also has been done for the first time in the country. Under the expansion programme of the Travancore-Cochin Chemicals a new plant for the manufacture of 62% iron-free sodium sulphide

at the rate of 4.2 tonnes per day has also been commissioned. This plant too is the first of its kind in India.

The main raw materials required in this industry are salt and power. Power is supplied from the Kerala State Electricity grid. The supply of high purity salt required for the process is obtained mostly from Kutch and Saurashtra and a portion from South India. The caustic soda produced in the factory is sold to large bulk consumers in the neighbourhood such as the Travancore Rayons Ltd., Tata Oil Mills Co., Ltd., Indian Rare Earths Ltd., Punalur Paper Mills Ltd., etc. Practically the entire caustic soda requirements of the industries in the State are being met by this factory. This factory also meets a portion of the requirements of other Rayon producers in the country.

In 1960-61, 493 persons were employed in the factory. The lowest minimum wage was Rs. 70 per month and the wage levels were among the highest in the State. In addition, bonus at 4 months' total salary was being paid. In 1960-61 the total amount paid by way of salaries, wages and other benefits came to Rs. 14,37,770.

Indian Aluminium Company, Ltd., Alwaye

This factory located at Alupuram, near Alwaye, is one of the six units of the Indian Aluminium Company, Limited situated in different States with its registered office at Calcutta. The construction of the Alupuram smelter with an initial capacity of 2,540 tonnes, capable of being increased to 5,120 tonnes, was started in 1941. Power was switched on 17th February 1943 and the first metal was tapped out on 6th March 1943. In 1954 the plant was expanded to the originally envisaged 5,120 tonnes capacity, and is now capable of producing 5,700 tonnes. The Company has recently started on the construction of an additional smelter, adjacent to the existing smelter, which will increase the smelting capacity at Alupuram to 10,850 tonnes per annum.

The smelter operation mainly consists of extraction of metallic aluminium from alumina, i.e., purified bauxite, which is produced at the Company's alumina plant at Muri, near Ranchi, in Bihar, close to the bauxite mines at Lohardage in the same State. From Muri, alumina is transported by rail or sea to Alwaye. Another important raw material is petroleum coke, which is currently being

imported but may eventually be supplied by the newly opened oil refineries in Assam/Bihar. The main chemicals required for the smelting operation, namely, cryolite, aluminium flouride and fluorspar, are currently being imported.

The aluminium ingots produced by the Alupuram smelter are mostly either (i) fabricated into extruded sections, or (ii) supplied to the electric conductor manufacturers for being made into conductors or (iii) supplied to the Company's paste and powder plant at Kalwa near Bombay. Part of the supply to the electric conductor manufacturers is in the form of billets or extruded rods.

In the year 1955 an extrusion press capable of producing 1,220 tonnes was installed adjacent to the smelter. In 1961 one more extrusion press was installed increasing the total extrusion capacity to 3,760 tonnes per annum.

This factory employs about 850 persons comprising 625 workers and 225 staff members. Wage scales for jobs have been fixed in accordance with Job Evaluation in agreement with the Workers' Union. The Labour-Management agreement contains elaborate provisions regarding wages, monthly and annual productivity bonus, working hours and overtime, recruitment and promotion, welfare amenities, grievance procedure, joint consultative bodies, etc. The Company and the Workers' Union negotiated their third long-term agreement in 1963 which indicates that the parties are satisfied with the working of the two previous collective bargaining agreements.

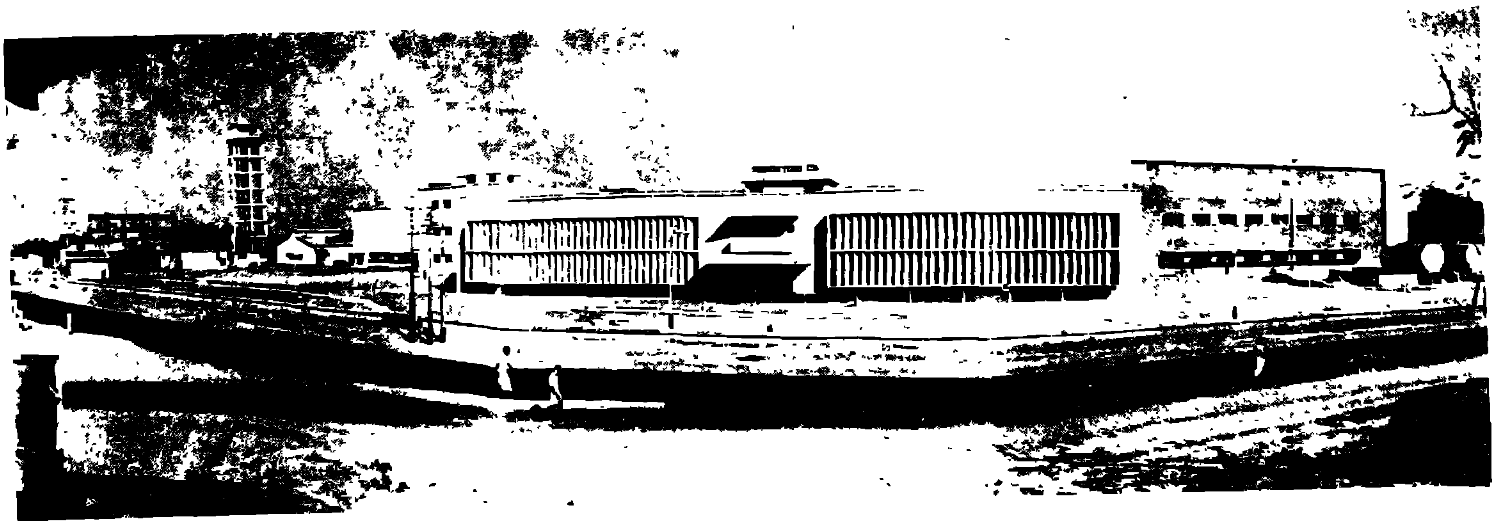
Tata Oil Mills Co., Ltd., Ernakulam

The Tata Oil Mills Company, Limited, was registered in Bombay on 10th December 1917 with an Authorised Capital of one crore of rupees, divided into one hundred thousand shares of Rs. 100 each. The main object for which the Company was established was for extracting oil from oil-bearing seeds by mechanical crushing or by solvent extraction or any other mechanical or chemical processes. The Company constructed its first factory in 1918 on a fifty-acre plot of partly reclaimed land on the northern

outskirts of Ernakulam town and named it "Tatapuram" Unfortunately, ever since its inception the Oil Mills not only did not make any profit, but sustained heavy losses year after year till about 1930 when for the first time a small profit was recorded. When it was found that the company could not operate profitably by merely working as an Oil Miller, it decided to import additional plant and equipment with a view to utilising the oils of its own crushing for the manufacture of industrial and edible oils, household and toilet soaps, toiletries, etc. Thus in 1927 an edible oil section and a soap section were added to the Tatapuram factory. This change in the activities of the company gradually improved its position and by 1938 it had turned the corner and since then it has been making steady progress.

The company erected another factory at Bombay in 1939. In order to market its finished products such as soaps of all kinds, *vanaspati* and other edible products, toiletries, etc. which were gradually gaining popularity, the company reorganised and slowly expanded its Sales Department which has at present twelve main Sales Offices situated in as many of the main cities of India. These Sales Offices are controlled by four Regional Offices located in Bombay, Delhi, Calcutta and Bangalore. The entire sales strategy and programme is drawn up and guided by a Marketing Department. A third factory went into operation in Calcutta in 1956 and a fourth is under erection in Delhi. With a view to financing the steadily increasing activities of the company, its Authorised Capital was increased to Rs. 2.5 crores. The issued and subscribed capital currently stands at Rs. 1.35 crores of rupees. The sales income which stood at a mere Rs. 14 lakhs in the year 1926-27 rose to Rs. 1,289 lakhs in 1962-63. Payment to employees which stood at about Rs. 2 lakhs in 1926-27 has risen to Rs. 149 lakhs in 1962-63. In order to improve its position still further the company is diversifying its activities and a Food Division is being set up to produce protein rich flours, dehydrated vegetables, canned fruits, fruit juices, fruit powders, etc., for human consumption and well balanced formulated feeds for cattle and poultry.

Because India is a country of great distances and the transport charges are a heavy item of expenditure, the company has located its four factories at about 2,000 km. apart from each other in the South, North, West and East for



AN IMPRESSIVE VIEW OF THE PREMIER TYRES, KALAMASSERI, FROM THE NATIONAL HIGHWAY-47

producing virtually identical products to cater to the needs of each of the respective regions. The Tatapuram factory which essentially caters to the needs of the Southern region has considerably stepped up its production during the 45 years of its existence. New plants and machinery are being installed and schemes for renovation of each of the production units gradually being carried out. Barring a large proportion of the requirement of coconut oil and the entire needs of caustic soda, light wood timber for packing cases and glass bottles, almost all the other raw materials required by the Tatapuram factory are got from outside Kerala State. Tube well water makes up the shortage of the municipal supply of water and so too thermal power generated by the factory has to augment hydro-electric power received from the Government.

The Tatapuram factory has on its roll a little over 1,200 employees who are paid one of the highest wage rates of the region. Besides basic wage, the employees receive dearness allowance linked to the living index figure of the region. In addition, most of them participate in an incentive bonus scheme. Besides, they receive an yearly bonus which in recent years has come to about three months' wages/salaries. All employees are entitled to privilege, casual and sick leave facilities and also they participate in a scheme of gratuity and provident fund.

Premier Tyres, Ltd., Kalamasseri

The Premier Tyres, Ltd., Kalamasseri, the first major tyre manufacturing project in the State and the fifth of such units in the country, has a capacity to produce one thousand tyres and tubes per day, 80 per cent of which are truck tyres and 20 per cent car tyres. It went into production on 27th May, 1962. The Premier Tyres, Ltd., is a public limited company. The Board of Directors consists of nine members including the State Government nominees. The factory has been established with the technical collaboration of the U. S. Rubber, the premier rubber manufacturing company of America. The establishment of the Premier Tyres marks a new era in the industrial progress of the State, because even though Kerala produces more than 90 per cent of the raw rubber in India the State had not had a tyre factory so far.

The availability of cheap power, water and suitable land, nearness to rubber plantations, and proximity to

sea-port and railway communications were the factors that influenced the location of the factory at Kalamasseri. The capital structure of the company is as follows:—

Fixed capital—Rs. 2,32,00,000.
Working Capital—Rs. 64,00,000.

As on 31st May 1963 the company's employment and wage structure were as follows:—

	No.	Wages.
Total	**590**	**Rs. 12 lakhs**
Workers	401	Rs. 6 lakhs
Other than workers	189	Rs. 6 lakhs

Boiler, Air Compressor and Refrigeration Unit (5) Vacuum pump are the machinery used for the manufacture of automobile tyres and tubes. Steam power of 33,28,000 lb. is consumed monthly while electric power consumed per month amounts to 500,000 kwh. valued at Rs. 30,000. In addition, 130,000 litres of furnace oil worth Rs. 16,950 is used every month in the manufacturing process. The raw materials for the manufacture of automobile tyres and tubes consist mainly of Rubber (both natural and synthetic), Carbon black, Sulphur and other chemicals, Rayon Cord Fabric, Cotton fabric and Bead wire. The figures given below indicate the volume of raw materials used in 1964.

Volume of Raw Materials used in 1964

Material	Quantity used
Natural Rubber	16,30,582.00 kgs.
Synthetic Rubber	97,801.63 ,,
Rayon Cord Fabric	4,50,828.03 ,,
Bead Wire	1,12,654.00 ,,
Carbon Black	6,66,683.78 ,,
Sulphur	47,119.16 ,,
Zinc Oxide	1,20,174.14 ,,
Indian Square Woven Fabric	68,693.50 Metres

The quantity and value of principal products manufactured during the year are also given below:

Quantity and value of principal products manufactured in 1964

Product	No.	Value Rs.
Total		**2,26,33,073.17**
Tyres	80,239	2,03,08,630.26
Tubes	84,580	21,02,958.33
Flaps	22,903	2,21,484.58

Travancore Rayons, Ltd., Rayonpuram

The Travancore Rayons Ltd., Rayonpuram, is the first Rayon producing factory to be set up in India. It commenced production in 1950. Located on the banks of the river Periyar at Rayonpuram about 12 miles from Alwaye and 30 miles from Cochin, the factory is now managed by Emcete & Sons Travancore, (Pvt.), Ltd., Rayonpuram, who are its managing agents. The issued, subscribed and paid-up capital amounts to Rs. 150 lakhs. About 1,500 workers are employed here. The average daily wage paid per worker is between Rs. 7 and Rs. 8 and the annual wage bill exceeds Rs. 31 lakhs.

The main raw materials are wood pulp, caustic soda and sulphur, of which, wood pulp is imported from Scandinavian countries, caustic soda from indigenous sources [mainly from the Travancore-Cochin Chemicals (Pvt.) Ltd., Udyogamandal, Alwaye] and sulphur from U.S.A. A small part of the company's wood pulp requirement is also met by the new Cotton Linter Pulp Plant. The pulp made from cotton linters is an exceptionally pure form of alpha cellulose with a purity of 99 per cent, and it is also free from impurities commonly met with in wood pulp and, therefore, rayon yarn and transparent cellulose film made from such pulp are of the best quality required by the end users. The transformation of the linters into rayon grade pulp demands quality control of a high order, and the operations involved are, briefly, careful selection of raw linters, pressure digestion in alkali liquor, and controlled single or multi-state bleaching, bearing in mind the desired qualities of the final pulp. The finished products of the company viz., Rayon of various deniers in the form of cakes, hanks and cones and transparent cellulose film, plain as well as moisture proof varieties, are marketed in India itself. A statement of the quantity and value of the principal products manufactured by the company during the year 1964 is given below:—

Principal product	Quantity in kg.	Value in Rs.
Rayon yarn	21,65,099	2,24,74,000
Transparent cellulose film	25,46,780	2,11,44,800

The net profit earned by the company during the year 1963 was Rs. 25,85,569.

Forest Industries (Travancore) Ltd, Alwaye

This was started in 1946. It is managed by the Government of Kerala. The capital invested comes to Rs. 12,45,250 divided into 468,100 shares of Rs. 2.50 each. Of these 51% of the shares are held by the Kerala Government. An area of 113 sq. miles of forests in the Malayattur reserve has been placed at the disposal of the company for exploitation by the Government for supply of firewood to the Fertilisers and Chemicals Travancore, Limited, Alwaye for the manufacture of Ammonium Sulphate and marketing of timber resulting from such forest working. The forest exploitation is done on American model by mechanised equipment and later changed to primitive type of manual cutting. The forest work is got done by private contractors at fixed rates for different areas. Timber is sold in round form at the main depot at Neeleswaram, Kaladi, to consumers like Match manufacturers, Plywood manufacturers, Frame manufacturers etc., and also to timber merchants and construction contractors. The Saw Mill at Thaikkattukara, Alwaye, is engaged mainly in conversion of softwood timber suitable for packing case manufacture and also in conversion of hardwoods for building and other purposes. A timber workshop with up-to-date machinery is functioning here. In 1960-61 the industry employed about 86 persons and the annual wage bill amounted to Rs. 2,19,300.

Travancore Ogale Glass Manufacturing Company, Ltd., Manjummel, Udyogamandal

A pioneering venture in the field of glass industry in the State, the Travancore Ogale Glass Manufacturing Company, Limited, was founded in 1942, and is the only sheet-glass manufacturing company in South India. Availability of labour, transport facilities and nearness to markets influenced the location of the factory at Manjummel. The total fixed capital is Rs. 10,06,718 and working capital Rs. 7,63,368. Automatic bottle making machine, semi-automatic bottle making machines, presses and machine tools are the principal machines and appliances used in production. The main raw material is quartz sand, which is obtained from the Shertallai deposits. The principal products manufactured in 1960-61 together with their quantity and value are given below.

Product	Quantity (tons)	Value Rs.
Total	**1,925**	**17,87,000**
Bottles	727	7,09,800
Table and Pressed ware	426	5,57,200
Lampware	137	3,35,000
Others	35	1,85,000

The number of persons employed in 1960-61 came to 431 and the amount paid by way of salaries, wages etc., was Rs. 5,83,437.

Travancore Chemical and Manufacturing Co. Ltd., Manjummel

This factory which is engaged in the manufacture of heavy chemicals was started in 1943. The availability of sulphuric acid and hydrochloric acid in the area was the main factor which induced the location of the factory in its present site. It is also centrally located so as to cater to the needs of estates and plantations from Mysore and Madras States. The fixed capital invested in the industry comes to Rs. 16,73,000 and the working capital to Rs. 27,15,300. In 1963 the factory had 180 persons on its pay roll and the annual wage bill came to Rs. 4,80,000. The principal raw materials used are copper scrap, aluminium hydroxide, hydro-chloric acid, sulphuric acid, caustic soda and bauxite. A statement of the most important products together with their quantity and value for the years 1961-62 and 1962-63 is given below.

Products	Quantity produced (in tonnes)		Value based on average or estimated price (Rs. in lakhs)	
	1961-62	1962-63	1961-62	1962-63
Copper sulphate	2,400	2,270	40.8	40.85
Copper oxychloride	180	258	6.75	11.32
Sulphate of alumina	275	590	1.10	2.35
Sodium aluminate	175	540	2.10	6.40

The products are sold mainly to rubber plantations, tea and coffee estates and Agricultural Departments of the State Governments. This is the only factory in the District manufacturing copper sulphate.

Hindustan Insecticides, Ltd., Udyogamandal

This is a Government of India undertaking started in 1957 for the manufacture of D.D.T. and its formulation. The availability of important raw materials such as Chlorine from the Travancore-Cochin Chemicals, Ltd., and Oleum from the Fertilisers and Chemicals, Travancore Ltd., helped the location of the factory at Udyogamandal. The fixed capital invested as on 31st March 1963 was Rs. 43.52 lakhs and working capital Rs. 100.31 lakhs. A total number of 270 persons including 167 workers were employed and the annual wage bill came to Rs. 6.04 lakhs. The most important raw materials are Benzene, Alcohol, China clay, Chlorine, Oleum, Microcel, Lissapol LS, Lissapol D and Ultramerse. Benzene is obtained from the Tata and Iron and Steel Co. Ltd., Jamshedpur and Hindustan Steel Ltd., Bhilai and the Fertiliser Corporation of India Ltd., Sindri and Alcohol from E.I.D. Parry Ltd., Nellikkuppom. China clay is supplied by the Government Ceramic Concerns, Kundara and Chlorine and Oleum by the T.C.C. Ltd., and F.A.C.T. Ltd., respectively. Microcel is obtained from U.S.A. and Lissapol LS from the United Kingdom. Lissapol D and Ultramerse are obtained from Bombay. A statement of the important products of the Hindustan Insecticides from April 1958 to March 1963 together with their quantity and value is given below.

Products	Quantity produced 1958 April to March 1963	Value based on average or estimated price
	Tonnes	Rs.
Technical DDT	5,748.688	2,12,70,145.60
50% Form DDT	7,297.569	2,22,57,585.45
75% Form DDT	563.200	25,90,720.00

The major portion of the products is placed at the disposal of the National Malaria Eradication Programme of the Government of India and a small portion to the private formulators and small-scale industries.

Indian Rare Earths, Ltd., Udyogamandal

This is a Government of India undertaking started in August 1952. On March 31, 1964 it had a fixed capital of Rs. 92.13 lakhs and a working capital of Rs. 66 lakhs. The Company is engaged in the processing of monasite sands for extraction of rare earths and other strategic materials required by the Indian Atomic Energy Commission.

The output of rare earth chloride in 1962-63 was 3,274 tonnes valued at Rs. 38.06 lakhs and that of trisodium phosphate 3,049 tonnes valued at Rs. 6.43 lakhs. The major raw materials required by the company are Monazite sands obtained from Chavara and Manavalakurichi. Hydro-chloric acid and caustic soda required for the treatment of the sands are obtained from T. C. Chemicals Ltd. Packing materials like jute bags are obtained locally while steel drums are made in the factory itself. The rare earth chloride which is the chief product of the company is exported to foreign countries while the by-product trisodium phosphate has a good home market. The Indian Rare Earths employs 328 workers. A colony for the workers is being established under the auspices of the company.

Tata-Fison, Ltd., Palluruthi.

This is a public limited company located at Palluruthi. The authorised capital of the company is Rs. 1 crore while the issued and paid-up capital is Rs. 50 lakhs. Its business is the manufacture of pesticides, such as dusting powders based on D.D.T., B.H.C., and Copper Oxychloride and also liquid insecticides based on pyretherum. The total output in 1962-63 was 21,313 tonnes of powders and 27,600 litres of liquid insecticides. The raw materials are obtained from native sources. The products of the company are sold mainly in Kerala and Madras, though about 10% of the products is also exported. The company employes 69 workers.

Giovanola-Binny Ltd., Palluruthi.

This is a factory for the manufacture of pen-stocks and allied products and is located in the industrial area of Palluruthi. The capital investment is Rs. 75 lakhs and the total production capacity is 6,000 tonnes per annum in single shift. The company which started production in 1964 has an employment potential of 250.

Anand Water Meter Manufacturing Co., Cochin

The factory is located in the industrial area of Palluruthi and is the only one of its kind in Kerala. It manufactures 24,000 water meters per annum of sizes ½", ¾", and 1" in technical collaboration with Messrs. Osaka and Kiko Ltd., Japan. The total cost of the project is Rs. 11.42 lakhs. The factory gives employment to 115 persons.

Traco Cables, Ltd., Thrippunithura

This is a private limited company in which the Government of Kerala holds more than 75 per cent of the shares. It started production in December 1964. It manufactures bare aluminium and copper wires, stranded aluminium conductors as well as insulated cables and wires. The factory has been set up in a 45 acre plot at Irimpanam, near Thrippunithura, with Canadian technical collaboration. With an authorised capital of Rs. 1 crore, its capacity is 36 million core yards of VIR and PVC Cables of all grades and voltages up to 1,100 volts worth Rs. one crore annually.

Seshasayee Wire Ropes, Ltd., Edathala

This factory has been set up at Edathala on the Alwaye-Pallikkara road under the management of the Seshasayee Brothers, Travancore, (Private), Ltd. Technical collaboration is with Kokoku Iron and Steel Wire Manufacturing Co., Ltd., Japan. The authorised capital of the company is Rs. 1 crore. It manufactures all kinds, types and sizes of steel wire ropes, wire rope accessories and fittings. The factory started production in December 1964.

Textile Mills

There are a few notable Textile Mills in this District. They are the Chakola Spinning and Weaving Mills, Ltd., Kalamasseri, Sri Chitra Mill, Kalamasseri, Kathayee Cotton Mills, Private, Ltd., Alwaye and Asoka Textiles (Private), Ltd., Asokapuram, near Alwaye.

The Chakola's Spinning and Weaving Mills, Ltd., is a public limited company with an authorised capital of Rs. 1 crore. The paid-up capital is Rs. 30 lakhs. The yarn is produced in 20 and 40 counts and the cloth produced is grey sheetings. The total spindleage is 20,456. The factory employs about 630 workers.

The Sri Chitra Mill is a partnership concern. It is engaged in the bleaching and finishing of cotton textile. The production was 31.5 lakh metres in 1961. Grey cotton textiles obtained from Bombay, Madras and Kerala States form the essential raw material for the industry. The required chemicals are obtained from the T. C. Chemicals, the Indian Rare Earths and the FACT. The products of this industry are sold within the State itself. There are more than 100 employees in the Mill.

The Kathayee Cotton Mills, Private, Limited has an authorised capital of Rs. 15 lakhs. It is engaged in the manufacture of cotton yarn of counts 40 and above. Raw cotton from indigenous sources as well as from outside is used. The products are sent out to other States, though a portion is consumed by the local handloom industry. The Mill has 12,576 spindles and its total output in 1962 was 1,517 bales of 200 kg. each. The company employs 258 workers.

The Asoka Textiles, Private, Ltd., is engaged in the manufacture of cotton and staple fibre yarn. The authorised capital of the company is 25 lakhs of Rupees and the paid-up capital is 15 lakhs. The major raw material required is cotton which is obtained from indigenous sources as well as from outside. In 1961 the out-put of the company was 11,17,582.10 kg. of cotton yarn in hanks and cones. More than 50% of the product is marketed outside Kerala. There are 674 employees in the company.

A new Textile Mill viz., the G.T.N. Textiles, Ltd., is being set up at Erumathala near Alwaye. The authorised capital of the company is Rs. 50 lakhs. The Mill will have 12,000 spindles when installed. The spinning of yarn will be its sole business. The company will employ about 200 people when it begins production.

SMALL SCALE INDUSTRIES

Coir Industry

The coir industry is the largest and most important cottage industry in Kerala. It is vital to the economy of the State both as an earner of foreign exchange and as a source of employment to a large section of the people. The raw material for the industry is coconut husk which is available in plenty in this District. Another factor in the development of the industry is the existence of cheap facilities in the coastal areas for retting raw husks. The industry varies in its importance and magnitude according to the natural facilities, local conditions and the aptitude and skill of the people engaged in it. The main varieties of coir yarn now produced in the Ernakulam District may be roughly grouped as follows:—

Aroor Special

This is a kind of superior variety of the Vaikom yarn produced in the Aroor area situated on the

northernmost point of the Shertallai Taluk (Alleppey) and at Idacochin and Kumbalangi in Ernakulam District. But the quantity produced is comparatively small when compared to the quantity of yarn of the other varieties. It is purely hand spun.

Parur Vannan

This variety of yarn is produced in large quantities, in the Ernakulam and Trichur Districts. The main centres of production of this variety are Vavakkadu, Chittattumkara, Pattanom, Kottapuram, Cranganore, Cherai and Njarakkal. Superior varieties of this quality of yarn known as Paru Special are also produced in the above areas.

Thin Rope Yarn

It is mostly hand spun and is manufactured in the erstwhile Cochin area, Maradu and Elangunnapuzha being the main centres.

The other finished products of coir are, chiefly, hall and stair runners in a variety of patterns and richness of colour and design; rugs and carpets, mourzoueks and door mats in a large variety of quality and construction. The mattings are woven as cloth, two-treadle, three-treadle, four-treadle, multi-treadle and on looms fitted with jacquards for obtaining more intricate designs in weaving. Besides woven patterns, stencilling of designs is extensively in use. Where a heavier type of floor covering is required, coir carpets and mourzoucks, in cubical, floral and other designs would be found so be more useful. The trade is always prepared to serve their customers who can have their goods made in any specified design or colour. There are a few notable concerns in this District engaged in the manufacture of coir products, e.g., Madura Co. (Private) Ltd., Coir Yarn Factory, Palluruthi, Volkart Brothers Hydraulic Press, Coir and Produce Yards, Cochin, Pierce Leslie and Company Hydraulic Press and Coir Yarn Yard, Cochin and Aspinwall and Company Ltd., Fort Cochin.

During the last few years the increase in export of finished coir products has not been steady and this seriously affected the coir industry. The poor conditions of the labourers, the existence of the unnecessary middlemen, adulteration and similar factors also hampered its progress considerably. Government drew up schemes to reorganise the industry on co-operative lines and co-operatives of various types were formed during the Plan periods. The

frame-work of the industry at present is supported chiefly by the Primary Coir Yarn Societies and Central Coir Marketing Societies. These are formed for retting and producing yarn. They undertake the marketing of the yarn through the Central Coir Marketing Societies which are organised for the purpose. Mats and Matting Societies and Rope Manufacturing Societies are also formed for the development of the manufacturing side of the industry which requires special attention at present. Another scheme is the Bristle and Mattress Fibre Manufacturing Society which is intended to promote the manufacture of fibre from unretted husks. In addition, there are Coir Co-operative Unions and Husk Retting Unions formed by the primary societies.

There are a number of private concerns engaged in Coir trade, but they are essentially unorganised. Due to non-availability of transport facilities most of the husks available in the interior parts are not being utilised for industrial purposes. It is the practice to ret the husks in the backwater areas near the coastal regions of the District. The bacterial action of the brackish water makes the fibre soft and moisture resistant and gives an attractive colour. The raw husks are kept submerged in shallow water for a period ranging from 4 to 9 months and after having been fully retted, the husks are beaten up with wooden beaters to remove the pith. The fibre thus produced is cleaned and used for the spinning of coir yarn. The spinning is carried on by using spindle wheels in certain areas, while in other areas hand spinning prevails.

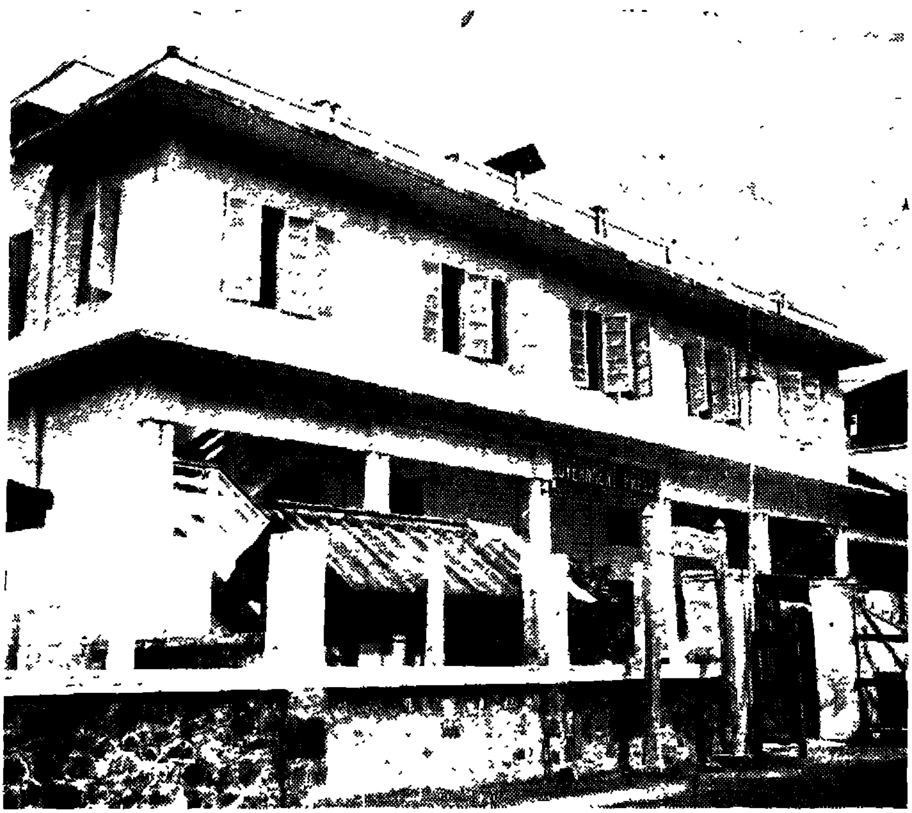
There is a Special Officer in the Industries Department of the Kerala Government to attend to the Coir Development Scheme. The Njarakkal, Mattancherri, Ernakulam and Parur Coir Inspectorates cover the area in this District and 46 societies were working at the end of the co-operative year 1961. The details are given below:—

Type of Society	No. of Societies	Membership	Paid-up-share Capital Rs.
Primary Coir Yarn Society	38	12,959	1,46,808.36
Thondu Vyavasaya Co-operative Societies	5	494	25,332.00
Central Coir Marketing Societies	1	101	46,731.00
Coir Co-operative Unions	2	24	(Not working)

Two Primary Coir Yarn Societies had been organised in this District during 1961-62.

Coir Board, Ernakulam

The Government of India have also taken great interest in the Coir industry. In 1953 the Coir Industry Act was passed whereby the industry was brought under the control of the Government of India as a measure of co-ordinating its development in the several States of India. A Coir Board was established under that Act and it functions with its headquarters at Ernakulam. Among the objects of the Board are promotion of exports of Coir Yarn and Coir products, improvement of marketing methods, fixing of quality standards whereby the primary objective of promotion of exports could be achieved, licensing of exporters and encouragement of research. It is the function of the Coir Board to ensure that, by better organisation and proper direction and control, India expands her overseas markets and gives her customers continued satisfaction through maintenance of quality and assurance of supply. The Board is constituted by the Government of India every three years. It has a Chairman appointed by the Government of India and 23 members chosen to represent various interests connected with the industry. There are three members to represent growers of coconut and producers of husks and coir yarn, three who are engaged in the production of husks, coir and coir yarn and in the manufacture of coir products, three manufacturers of coir products, three dealers in coir and coir yarn and coir products including both exporters and internal traders, three who are members of Parliament, five members representing Governments of the principal coconut-growing States (Kerala, Madras, Mysore, Andhra Pradesh and West Bengal) and three others who in the opinion of the Central Government deserve representation on the Board. The Board has an Executive Committee of seven persons presided over by the Chairman. It has also constituted four Standing Committees as follows:—(1) Development Committee, (2) Export Promotion Committee, (3) Marketing and Propaganda Committee and (4) Ad Hoc Scientific Research and Statistics Committee. One of the important schemes of the Coir Board is the Export Incentive Scheme introduced with effect from the first July 1962 under which exporters of coir yarn and products are given facilities to import their requirements of dyes and chemicals, machinery, sisal yarn/fibre, on the basis of their export performance. Another important activity of the Board is the promotion of external marketing



GOVERNMENT PRESS, ERNAKULAM—FRONT VIEW

by propaganda and by sending trade delegations and study teams to the principal foreign markets. To popularise coir goods within the country the Board has set up five Show Rooms and Sales Depots in the five principal cities of India, viz., New Delhi, Bombay, Calcutta, Madras and Bangalore. It has also accredited dealers at Hyderabad, Nagpur, Trivandrum, Ernakulam, Calicut, Vijayawada and Mangalore. The Coir Board also runs a Coir Research Institute at Kalavoor (Alleppey District) in order to attend to matters concerning research covering various aspects of the industry.

Printing Industry

The printing industry, an important small-scale industry, has made progress in this District. In 1962 there were 38 registered presses employing 728 persons in all. The premier Printing Press is the Government Press, Ernakulam, which was the Cochin Government Press before the integration of Travancore and Cochin. It was established more than a century ago, even though the exact year of the inception cannot be traced from the records. It was located in a small building very near to the present Collectorate building. From an order issued in 1898 it is seen that the staff at the time numbered only 45. Sir. A. R. Banerjee, the then Dewan of Cochin, effected some improvements in its working. A striking change in the working of the press took place during the Dewanship of Sir R. K. Shanmughom Chetti who took a personal interest in the institution and brought down technicians from outside the State. In 1965 there were about 400 workers in the Government Press. Barring the Government Press and a few others owned by newspapers, the overwhelmingly large number of presses are units employing 1 to 10 workers. The units become smaller and smaller in the mofussil areas and work in some of them is carried on as a cottage industry. In small presses, the workers are often all-rounders doing composing, printing and binding jobs as occasion demands. The large majority of workers are adult males, but women are also employed in appreciable numbers in the composing and binding sections. Generally the rates of wages of women are less than those of men. There is also a considerable number of young persons employed in the industry. These persons are entertained as learners or apprentices and are paid very low wages.

Tile Industry

Alwaye town which is a great industrial centre is an important centre of the tile industry. Ankamali (Alwaye Taluk), Ramamangalam and Piravam (Moovattupuzha Taluk) have also their tile factories. In 1962 there were 15 tile factories in this District employing 930 workers. Among the most important of the tile factories are the Standard Pottery Works, Alwaye, the Osmania Tile Works, Thuruth, Alwaye, the Victory Tile Works, Thuruth, Alwaye, the Lakshmi Tile Works, Alwaye, the Union Tile Works, Chengamanad, Alwaye, the Hindustan Ceramic and Tile Works Ltd., Marampalli, Alwaye, etc. As Alwaye has the advantage of cheap canal or river transport and is also connected by rail, the Alwaye tiles find a ready market in the neighbouring Taluks. In the tile factories besides roofing tiles sundry items such as heating tiles, ridge and ball tiles, flooring tiles, terrace tiles, skylight ventilators, water coolers, etc. are manufactured. In some of the larger factories like the Standard Pottery Works, Alwaye, there are ancillary industries like manufacture of stoneware, pipes, sanitary ware and crockery. This concern alone has an authorised capital of Rs. 10 lakhs and provides employment to more than 400 workers.

Handloom Industry

The handloom industry has flourished in this area from very early days. It has been known to be the traditional occupation of a particular caste known as Chaliyans. According to the report of the Minimum Wages Committee for Employment in the Handloom Industry (1960) there were 4,941 looms in the Ernakulam District. The industry is covered mainly by three sectors of production, viz., (1) organised private sector, consisting of registered factories, (2) the co-operative sector and (3) unorganised private sector consisting of master-weavers and individual weavers. Considerable progress has been achieved in recent years in organising the handloom industry on co-operative lines. Chennamangalam, Parur, Thrippunithura, Mulanthuruthi, Varapuzha etc., are some of the places where the industry has been organised on a co-operative basis. In 1964 there were 18 Handloom Weavers Co-operative Societies in the District and they had a total membership of 2315 persons. About Rs. 4 lakhs had been invested by these societies in their business and the annual value of

their turnover was Rs. 15 lakhs. The average daily wage of an employee in the industry comes to Rs. 2.

Oil Mills

The District has a large number of oil mills. Some of the bigger units working in the field are located in and around Cochin which is an important centre of oil trade. Thodupuzha, Parur and Nettur are some of the other centres of this industry. The vast majority of the oil mills are unregistered concerns. In 1963 there were 44 registered oil mills in this District providing employment to 325 persons.

Saw Mills

The timber industry is another important industry in this area. A number of saw mills operated by electric power are functioning in such places as Ernakulam, Palluruthi, Piravam, Vazhakulam, Alwave, Perumbavur etc. The saw mills are indispensable for large scale break-up of logs for building, furniture works, sleepers, packing cases, etc. Large quantities of hardwood are cut in the mills and used for construction works. There are 22 registered saw mills in this District with a total of 245 employees. There is also a registered plywood factory providing employment to 28 persons.

OTHER INDUSTRIES

The industrial picture of the District would be incomplete without a reference to some of the other small-scale industries functioning in the area. The Indian Transformers, Alwaye, manufactures distribution transformers. It has a capacity of 10,000 K.V.A. The District has a few match factories. The Vanchinad Matches and Industries Ltd., Mudickal, Perumbavur, the Dhanalakshmi Match Factory, Piravam, the Alwaye Match works, Alwaye and the Revathi Match Works, Moovattupuzha are among the most important in the field. Each of the match factories normally employs 50 to 100 workers. There are also three registered cashew factories in this District at Alwaye and Chowara. They provide work to about 750 persons. Beedi manufacturing is another miscellaneous industry in the District and there are two notable units in the field at Kothamangalam and another one at

Moovattupuzha, each employing 50 workers. The Lakshmi Starch Factory at Palluruthi which employs 50 workers is engaged in the manufacture of tapioca flour. There is a Salt Factory at Malipuram, Vaipin Island. employing about 250 persons. There are also six registered factories engaged in the processing and freezing of sea foods. The Indo-Marine Agencies, Cochin, the Cochin Comapny, Cochin and the Kerala Food Packers (P) Ltd., Cochin are notable units in the field. Each of these factories provides employment to a maximum of 250 workers. There are a few small scale units engaged in soap manufacture, e.g., the Kshema Soap Industries, Cochin and the Pankaj Soaps and Oil Mills, Palluruthi. The former employs 15 workers and the latter 47. Automobile reparing is another small scale industry. There are 15 registered factories in this field providing employment to 332 persons. A notable unit is the Marikar Engineers, Ernakulam. The Cochin Harbour Workshops, Dry Dock and Power Station, Willingdon Island, is an important unit engaged in repairing machinery and it employs more than 750 persons. Tin industry has also sprung up in the area recently. The Asoka Tin Factory, Ernakulam and the Cochin Tin Factory, Palluruthi may be mentioned in this connection. Boat building is also a notable industry of the area. The Madura Company Boat Building Yard, Vaipin, which employs more than 40 persons is an important concern which is engaged in the construction of boats, barges, launches etc. and repair works connected with them. The Bharat Industries, Thoppumpadi, has a boat building yard which employs 83 workers. The total capital investment in the industry comes to Rs. 2 lakhs. In 1962-63 it manufactured boats varying in size from 30′ to 52′ at a total cost of Rs. 5,09,500. The Coronation and Plastic Industries, Ernakulam, which makes umbrella ribs, plastic handles, paper weights etc. employs 50 persons. The St. Marys Industrial Mart, Ernakulam, manufactures musical instruments and articles of furniture while the West Coast Electroplating Company manufactures agricultural implements and hardware platings etc.

The following statement which gives the distribution of factories in the District as on 31st December 1962 with particulars of the number of workers employed in each would also help to give an over-all picture of the industrial structure of the District.

Distribution of Factories as on 31st December 1962

	Industry	No. of factories	No. of workers
	Total	297	17,601
1	Oil	44	325
2	Tea	1	10
3	Cashew	3	756
4	Beedi and Cigar	4	98
5	Cotton Textiles	8	2,428
6	Coir	14	1,991
7	Saw Mills	22	245
8	Plywood	1	28
9	Other Wood Industries including Splints & Veneers	19	618
10	Rubber	11	604
11	Printing	38	728
12	Chemicals including matches	15	3,330
13	Soaps	3	1,045
14	Bricks and Tiles	15	930
15	Automobile repairing	15	332
16	General Engineering	11	206
17	Other Industries not classified above	73	3,927

Source: *Quarterly Bulletin of Statistics for the quarter ending June* 30, 1963

Khadi & Village Industries

The most important of the cottage industries in the District are Khadi, pottery, village oil, hand-pounding of paddy, village pottery, gurkhansari and non-edible oil soap etc. In 1962 there were 41 institutions or units in the field and they provided employment to about 1600 perons in one way or other. A statement showing the number of persons engaged in Khadi and Village Industries is given below.

Industry	Full—time	Part—time	Casual
Khadi	799	.	..
Village Oil	53	..	..
Handpounding of paddy	29	59	..
Handmade paper	16	..	5
Gurkhansari	78	..	..
Village Pottery	411	124	..
Village Leather	2	6	2
Bee-keeping	221	..	..
Non-edible oil soap	4	4	4

All the institutions were either within the co-operative fold or under charitable institutions. The management

was vested in honorary Chairmen or Secretaries under the supervision of the Co-operative and Industries Departments and the Kerala Khadi & Village Industries Board. In a few cases, paid Secretaries or Managers were appointed according to the needs and financial stability of the institutions.

The raw materials for these industries are locally available in plenty except in the case of Khadi where cotton is to be purchased from sister States. The total capital invested in the Khadi and Village Industries is estimated at Rs. 3,48,450.03. The products of these industries except Khadi are marketed locally. As for Khadi a portion is sent to other States to fetch an easy market. The average daily wages in these industries can be roughly estimated as follows:—

Men	Rs. 1.508	per head per day
Women	Rs. 0.75	.. ..
Children	Rs. 0.50	.. ..

INDUSTRIAL ARTS

Wood and Ivory Carving

Ernakulam and Cochin are important production centres of wood articles, ivory carving, buffalo horn carving and wood carving, one of the most ancient crafts in the State. Isolated carving units exist even in the interior villages, though very little is known about them outside those villages. The products are sold direct to consumers or to middlemen traders outside the State. Most of the establishments in Ernakulam and Cochin are having direct show room sales. The big dealers supply raw materials to local workers and engage them in producing articles. Carving of ivory, wood or horn requires only hand tools and talented craftsmen.

Bell-metal Casting

This unique craft flourishes in Moovattupuzha, Chennamangalam and Palarivattam and is almost wholly in the private sector. The articles are mostly marketed through middlemen traders, but a few units produce for the customers direct. Most of the Bell-metal workers are hereditary craftsmen called 'Moosaris' and work has been going on for centuries in their homes. The richness of talent and perfection in this art is revealed by the large

Varpus (shallow basin of hemispherical shape) and multi-storeyed lamps kept in such famous temples as that of Thrippunithura.

Bamboo and Cane work

This is one of the most important cottage industries in the District, being a major source of income for many of the tribal people occupying the forest ranges. Till a few decades ago only coarse bamboo mats and cane baskets were made. In course of time artistic utilities like fancy baskets, shopping bags, fine mats etc. began to be made as a result of the impact of foreign cultures. Highly artistic items are now produced in Alwaye. Ankamali is also a centre of bamboo work. Fancy articles of bamboo are having less market than the utility items and hence the producers often take them to the railway stations, bus stands and other places of public gathering. With the growth of the industry cane and rattan articles have become almost essential utilities of the well-placed people.

Toys and Dolls making

Cochin is a major centre of this craft. Clay and wooden toys are manufactured. Musical instruments like Harmonium, Fiddle, Drums, Mridangam, Flute, Veena etc. are manufactured in Ernakulam.

Embroidery and Lace making

Lace and embroidery work is a very important handicraft of the womenfolk of the District. It is undertaken in an organised way by the Mahila Samajams and Social Welfare Centres that have come into existence as a result of the Plan activities under the Community Development Programme. It is aimed more at giving work to the unemployed women than at making profit. Girls are being trained in this craft. The members of the Mahila Samajams and Social Welfare Centres also often take to this work and the articles produced by them are marketed by the institutions.

Laminated Wood work

Fancy and utility articles of laminated wood are produced in an isolated establishment at Parur. Pieces of wood of different colours are joined together in attractive patterns and articles like bowls, trays, measures, etc., are

made. Highly attractive in form and appearance, these articles have a very good market outside the State. The proprietary establishment at Parur works against orders from big merchants and dealers at Calcutta, Bombay and Madras and it works throughout the year. This is a recently introduced craft and the existing establishment has been started only in 1957.

A list of important handicraft centres in the District is given below.

Handicraft Centres in the District

	Name of Centre	Name of craft	Materials used	Particulars of products
1	Parur	Laminated wood work and coconut shell carving	Wood pieces of different colours, coconut shell	Ash trays, bowls, trays spoons, portraits with pieces of different woods, etc.
2	Chennamangalam	Bell-metal work	Bell-metal	Articles of bell-metal
3	Ankamali	Bamboo work	Bamboo and reed	Mats and baskets
4	Alwaye	Bamboo work	Bamboo and reed	Fancy articles of reed like shopping bags, baskets, etc.
5	Palarivattam	Bell-metal work	Bell-metal	Bell-metal articles like lamp, house hold utensils etc.
6	Ernakulam	Embroidery, Musical instruments, carving	Clothes, coloured threads, wood, string, ivory, horn wood	Children's wear (embroidered), veena, fiddle etc. Fancy articles of ivory, horn and wood
7	Moovattupuzha	Bell-metal work	Bell-metal	Bell-metal articles (lamps, pots, uruli, etc.)
8	Vellanad	Bell-metal work	,,	,,

Industrial Estates

An Industrial Estate was established in this District during the Second Five Year Plan. It is located in Veli (Palluruthi) on the western side of the main road from Alleppey to Cochin and occupies an area of 1.87 acres of poramboke land. The total outlay on the Estate was Rs. 2.57 lakhs. There are six sheds here provided with all amenities and they have been allotted to small scale industrialists for the manufacture of ready-made wooden doors and windows, furniture and toys, aluminium and stainless steel vessels, polythene bags and G.I. Drums, barbed and stayed wires, non-ferrous castings, fabrication of Aluminium for making hardware, doors, windows, furniture and bus body parts etc. It provides employment to 115 persons.

During the Third Five Year Plan a second industrial Estate has been sanctioned for this District and it is being set up at Vazhakulam. The total extent of this Estate is 4.62 acres. It is proposed to construct 15 sheds here with all modern amenities. The work on the project is in progress.

In addition, a third Industrial Estate has also been sanctioned for this District and it is proposed to set up the same at Ankamali.

Government have also taken steps to acquire and develop an area of about 450 acres at Edayar on the banks of the Periyar. This area will be allocated to major industries, particularly those with a chemical bias, and already an Ossein plant and a Zinc Smelter plant are being set up here.

INDUSTRIAL POTENTIAL AND PLANS FOR FUTURE DEVELOPMENT

No other District of Kerala is richer in industrial potential than Ernakulam and there is considerable scope for the planned development of industries in the region. The National Council of Applied Economic Research which conducted a Techno-Economic Survey in the State in 1960-61 and the All-India Manufacturers' Organisation (A.I.M.O.) which visited the State at the invitation of the Government of Kerala in 1962 have suggested various schemes for the future industrial development of the District. The most important of the suggestions may be alluded to here.

There are possibilities for the development of industries in the District based on agricultural and forest resources. Rubber is a raw material which is of considerable importance in this connection. In addition to the one Tyre factory (Premier Tyres) that has already been set up in the District, another one with a capacity of three lakhs automobile and giant tyres per year can be established in the Alwaye area. The forests of the region contain essential oil yielding plants like lemon-grass, citronella grass, cinnamon plants etc. Certain perfumeries such as Citral, Ionone etc. used in soap manufacture which are at present exported can be made out of these. Lemon grass oil is the important raw material for making Ionone which is an essential intermediate product for Vitamin 'A' besides its use in the synthetic perfume industry. A unit of the Essential Oil Industry for the

manufacture of Ionone etc. can be set up at Perumbavur where there is extensive cultivation of the raw material. A Phyto-Chemical Plant which will utilise a large number of herbs and other minor forest produce can also be set up at a suitable place. Sugarcane is another raw material of industrial importance. There are possibilities of starting more sugar factories in Central Kerala during the Fourth Plan period. The waste of these sugar factories, viz., bagasses, together with the bamboo resources of the forests of the District, can be profitably exploited by setting up a paper factory at Alwaye.

At present Monazite and Ilmenite and other rare earths are processed at the Rare Earth Factory at Alwaye where thorium is separated from other rare earths. The working up of residual mixture for recovery of salts of cerium and other rare earths from the point of their potential use in textile for weighing silks, for producing different patterns of cotton textiles as a base in alizirin dyes, in tanning, cerium glass, photographic industries etc. may also be looked into.

Considerable quantities of lime shell deposits occur throughout the banks of the backwaters of the District, particularly in the Vembanad lake. These deposits are being used mainly in the manufacture of cement. They are also useful in the manufacture of sand lime bricks and calcium carbide which in turn can be used in the manufacture of P.V.C. Compounds and Synthetic Rubber. A few factories for the former and one major factory for the manufacture of calcium carbide can also be set up at a suitable place in the District.

Ernakulam District has a larger number of chemical industries than any other District of Kerala. There is considerable scope for expansion in the output of the products manufactured in existing factories and also for setting up new units. The most important of the schemes for the expansion of existing factories are listed in Appendix I given at the end of this Chapter. Among the new chemical industries proposed to be set up in Kerala is the manufacture of industrial alcohol. This can be utilised in the manufacture of a number of other chemicals like Chloroform, Ethylene Oxide, Ethylene Glycol, Ethylene Chlorodydrin and Ethanolamines. A factory for the manufacture of Poly Vinyl Chloride Plastics can also be set up near the Travancore-Cochin Chemicals, Alwaye. Chlorine which is so

essential for the manufacture of P.V.C. would be available from this concern. The P.V.C. products which find a variety of uses, as for example, in leather cloth industry, upholstery, toys and a large number of consumer goods, can get a ready market in the industries in and around Alwaye.

Coconut, banana, tapioca and cashewnut are some of the important auxiliary food crops of Kerala and a number of subsidiary foods can be made out of these. The banana can be sliced, fried as chips, neatly packed and sold outside the State. Deoiled coconut cakes can be mixed with tapioca flour and some cashewnut powder and extruded into noodles which can be used for making soups or *kanjee* and also as a breakfast. This industry can be set up in such centres as Cochin and Alwaye.

It should also be possible to establish one or more fish meal plants in the Cochin-Ernakulam area having a capacity of 10 to 15 tons of fish per day. The plant can also be provided with oil extraction equipment. This will not only provide oil as a by-product but will also improve the quality of the fish meal. The cost of a fish meal plant with an intake of 10 to 15 tons of fish per day is estimated at about Rs. 5 lakhs. Side by side with the fish-based industries boat building and net making can also be developed on a larger scale as ancillary industries.

The anticipated demand from the Ship Building Yard at Cochin and other shipping activity brightens the prospects for the establishment of several factories for the manufacture of wire ropes, cables, electrical goods etc. in the District. A number of supplementary Engineering industries can also be established in the area with raw materials (pig iron castings, steel scrap etc.,) imported from outside the State. The most important items suggested are Pig Iron Alloy and Special Steel, Machine Tools, Industrial Machinery, High Carbon Millets and Rods etc. During the First and Second Plan periods Kerala did not get her legitimate share of large scale industries set up in the Central sector. Out of a total Central investment of Rs. 770 crores in the Second Plan Kerala got only a Rs. 0.79 crores D.D.T. factory. The establishment of the Ship Yard, Oil Refinery and the Machine Tools Unit in this District during the Third and Fourth Plan periods will go a long way to compensate for this neglect. The rise of these heavy industries would necessitate the establishment of innumerable ancillary

industries in the Cochin-Ernakulam region. The area is also ideal for setting up industrial units for building small power launches and marine engine manufacture. At Cochin Port the dry dock facilities and ship repairing can be encouraged and developed further in view of the ship building yard being set up here. Mention may also be made in this connection of the recommendation of the A.I.M.O. Delegation for the establishment of a free trade zone near about Cochin. This will help in the setting up of a number of processing industries from semi-finished foreign imported materials for re-export and also earn adequate foreign exchange.

A statement of the important schemes for the industrial development of the District suggested in the report of the Techno-Economic Survey conducted by the National Council of Applied Economic Research is given at Appendix I. Among the new industries that are being established in accordance with these and other suggestions the following deserve special mention, viz., (1) Transformers and Electricals, Kerala Ltd., Ankamali (2) Premier Cable Co. Ltd., Karukutti (3) Carborundum Universal Ltd., Edappilli, (4) Ossein Plant, Edayar (5) Cominco Binani Zinc Ltd., Edayar (6) Packaging Paper Corporation Ltd., (7) Southern Gas Ltd. (8) Fertiliser Plant, Ambalamukal.

Transformers and Electricals, Kerala, Ltd., Ankamali

The Transformers and Electricals, Kerala, Ltd., is being set up at Ankamali. It is sponsored by the Government of Kerala and the Kerala State Industrial Development Corporation. This factory will manufacture heavy electrical equipments such as transformers up to 50,000 K.V. It is expected to produce equipment worth Rs. 1.50 crores annually. The total investment in this project is Rs. 2.2 crores and when completed it will provide employment to 700 persons. Its sponsors have secured the co-operation of the well-known Japanese firm of Hitachi, Ltd., which will supply all requisite machinery and also contribute 26 per cent of the share capital. Work on the factory has already started, and it is expected that it will go into production in 1965.

Premier Cable Co., Ltd., Karukutti

The Premier Cable Co., Ltd., is a public limited company with an authorised capital of Rs. 1 crore. The factory is being built in a 52 acre site near Karukutti Railway Station on the Cochin-Shoranur route. It will manufacture H.T. and L.T. cables and wires and is being set up with East German collaboration. When completed it will provide employment to about 250 persons.

Carborundum Universal, Ltd., Edappilli

Messrs. Carborundum Universal, Ltd., are putting up a plant at Edappilli for the manufacture of aluminium oxide. Designed to produce 7,500 tons of granulated aluminium oxide per year this factory is being set up with American collaboration . The investment involved is Rs. 51 lakhs. When completed the factory will provide employment to 150 persons. Work has already been started and the factory is expected to go into production in 1964 itself.

Ossein Plant, Edayar

A consortium of Messrs. Rallis India Ltd., Aspinwal Company Ltd., and the Mysore Fertiliser Company is erecting an Ossein Gelatine Plant in the industrial area at Edayar with French collaboration. The company which is named Protein Products of India,Ltd., involves a total investment of nearly Rs. 70 lakhs. It will produce Ossein for export and photographic gelatine to meet the requirements of the Hindustan Photo Films, Ootty. The Company will provide employment to about 250 persons.

Cominco Binani Zinc, Ltd., Edayar

This is a Zinc Smelter plant which is being set up in the industrial area at Edayar on the banks of the Periyar river. It involves an investment of about Rs. 6 crores. The factory is sponsored by Cominco Binani Zinc Ltd., Calcutta,, with Canadian technical collaboration. It will produce 20,000 tons of electrolytic zinc annually from imported zinc ores. Sulphuric acid will also be produced as a by-product to the extent of 120 tons per day. Preliminary work on the project has already started . The employment potential is estimated to be 307.

Packing Paper Corporation, Ltd.

This company has been sponsored by the Kerala State Industrial Development Corporation ,Ltd., and a private industrialist of Kottayam for setting up a plant for the manufacture of packaging paper and other forms of industrial paper. Involving an amount of Rs. 14 crores the proposed plant will utilise the firewood available with the Forest Industries Travancore, Ltd. The production is expected to be 30,000 tons flutting medium and lining paper per annum and 30,000 tons pulp per annum. The factory which will be located near Alwaye will be erected with Canadian technical collaboration.

Southern Gas, Ltd., Alwaye

This plant which will be located at Alwaye is designed to manufacture 60 million cft. oxygen and 12 million cft. acetylene per annum. The total cost of the scheme is estimated at Rs. 40 lakhs. The factory will provide employment to about 70 persons.

Fertiliser Plant, Ambalamukal

The erection of a new Fertiliser Factory at Ambalamukal as an adjunct to the Oil Refinery and as a nucleus for the development of petro-chemical industries around it has also been decided upon by the Government of India. The project which is estimated to cost Rs. 36 Crores will be executed by the FACT, Ltd, Eloor.

LABOUR AND EMPLOYERS' ORGANISATIONS.

Industrial labour in this District is well orgainsed in trade unions. There are influential unions in almost all major industrial concerns. The earliest union established in the District is the Malabar Hotel Employees Union, Thoppumpadi, registered on 7th Dhanu, 1113 (22nd December 1937). As its registration was cancelled with effect from 4th April, 1940, it is not functioning at present. The Tata Oil Mill Workers Union, Ernakulam, which is one of the oldest and best organised trade unions in this District is still on the register. According to information furnished by the Registrar of Trade Unions there were 164 trade unions

in this District in 1961-62 and their total membership was 31,452. Most of the trade unions are sponsored by political parties and are affiliated to all-India organisations of trade unions such as the All India Trade Union Congress (A.I.T.U.C.), United Trade Union Congress (U.T.U.C.), Indian National Trade Union Congress (I.N.T.U.C.) and Hind Mazdoor Sabha (H.M.S.) A statement showing the industrial classification of trade unions in 1961-62 is given at Appendix II.

One of the most important of the employers' organisa' tions functioning in the District is the West Coast Employers-Federation, Willingdon Island, Cochin. It was founded in July 1956 and was registered under the Indian Trade Unions Act(1926)by the Registrar of Trade Unions, Kerala State. The objectives of the Federation are to promote and protect the interests of employers engaged in any industrial enterprise which employs workmen, to advise members on all problems relating to employer-employee relationship, to endeavour to settle disputes between employers and employees amicably in the interests of industrial peace, to provide legal or technical assistance to members in respect of matters arising out of industrial disputes, to obtain information pertaining to industry and employment in India and outside, etc. etc. The Federation is affiliated to the Employers' Federation of Southern India, Madras and is also a direct member of the Employers' Federation of India, Bombay. In Kerala State it is represented on the Kerala Industrial Relations Board, the Kerala Regional Board of the Employees State Insurance Corporation and the Local Committee of the Workers Education Centre, Alwaye. The Federation has also constituted a Screening Committee composed of legal experts to advise members on proposals regarding appeals to higher courts against awards of Industrial Tribunals or Labour Courts.

Mention may also be made in this connection of certain institutional agencies or organisations functioning in the District for catering to the professional needs of various people engaged in industry. They are the Kerala State Productivity Council, Ernakulam, the Indian Institute of Personnel Management, Ernakulam and the Statistical Quality Control Unit, Ernakulam. The Kerala State Productivity Council which is one of the 46 local Councils

affiliated to the National Productivity Council of India was formed in 1959. It is administered by a Governing Body of which the Minister for Industries, Kerala State, is the President. The Governing Body has on it representatives of Industry, Labour and Scientific and Professional bodies. In 1964 the membership of the Council included 76 industrial concerns. The Council arranges regular training courses, seminars, lectures, inter-plant visits and tours etc. and makes labour and management think in terms of increasing productivity. A Directory of Industries of Kerala was published under its sponsorship in 1964. The Council also maintains an excellent library at its headquarters in Ernakulam for the use of its members. The Kerala branch of the Indian Institute of Personnel Management was founded in 1962 with the object of promoting the study of personnel and industrial welfare problems. It arranges regular meetings and study courses for its members. The Statistical Control Unit, Ernakulam, strives to bring home to industrialists the importance of quality control techniques in industry. It organises training courses, undertakes installation of statistical control system in factories and generally gives guidance in their proper maintenance

Apart from these institutions there is a Regional Workers Education Centre functioning at Alwaye. The aim of the Centre is to disseminate knowledge of trade union methods and philosophy among the industrial workers. It runs a three months' course for the benefit of industrial workers and full-time trade union officials.

Welfare of Industrial Labour

The following labour laws are administered in this District for regulating industrial relations and providing amenities to labourers.

1 The Factories Act, 1948.

2 The Industrial Disputes Act, 1947.

3 The Industrial Employment (Standing Orders) Act, 1946.

4 The Payment of Wages Act, 1936.

5 The Employment of Children Act, 1938.

6 The Indian Trade Unions Act, 1926.

7 The Minimum Wages Act, 1948.

8 The Indian Boilers Act, 1923.
9 The Workmen's Compensation Act, 1923.
10 The Working Journalists (Fixation of Rates of Wages) Act, 1958.
11 The Working Journalists (Conditions of Service) and Miscellaneous Provisions Act, 1955.
12 The Plantations Labour Act, 1951.
13 The Travancore-Cochin Shops and Establish ments Act, 1125.
14 The Madras Shops and Establishments Act, 1947.
15 The Kerala Maternity Benefit Act, 1957.
16 The Kerala Industrial Establishments (National and Festival Holidays) Act, 1958.

Of these items 13, 14, 15 and 16 are State Legislations and the remaining Central Legislations applicable to States.

The Labour Department of the Government of Kerala has evolved its own policy for regulating industrial relations. Its aim is to ensure the settlement of industrial disputes by voluntary negotiations and conciliation and to minimise the reference of disputes for compulsory adjudication. Reference to arbitration and mediation of disputes by agreement of parties are also resorted to for the avoidance of protracted litigation before tribunals. There are two tiers in the machinery set up for the settlement of disputes, viz., statutory and non-statutory. The conciliation officers appointed under the Industrial Disputes Act constitute the statutory machinery and the Industrial Relations Committees formed for important industries the non-statutory bodies. The officers of the Labour Department from the Labour Commisisoner to the Deputy Labour Officers function as conciliation officers under the Industrial Disputes Act and settle the disputes that crop up in the various industries. High level conferences are convened by the Labour Commissioner and Deputy Labour Commissioner to explore the possibility of settling disputes which could not be settled at the District level. If no settlement is reached at such conferences and the issues involved are too far-reaching, they are discussed at another conference held in the presence of the Minister for Labour. Only as a last resort disputes

are referred to adjudication. The insistence on minimising of compulsory adjudication had its conciliatory effect on the employer-employee relations in the various industries. High level conferences have mostly contributed to the final settlement of disputes.

Industrial relations in the District are as good as in any other part of India. Almost all organised industries have concluded long-term agreements with their unions. These exclude strikes and lock-outs and recognise negotiations as the media for settling labour disputes. Industrial Relations Committees have been organised on a State-wide basis in almost all the major industries. The committees try to settle the industry-wise disputes. Industry-wise committees are functioning in this District in the Travancore Rayons, Perumbavur and Aluminium Co., Ltd., Alwaye. Works Committees are not prevalent in any of the industries. An Industrial Tribunal has also been functioning at Ernakulam since 19th February, 1956 for the settlement of disputes referred to it by the Government from time to time. It is vested with the powers of a First Class Magistrate under the various labour enactments. Claim petitions under the Minimum Wages Act, Payment of Wages Act and Employees State Insurance Act are filed before the Tribunal.

Some of the major industrial concerns in this District have evolved their own machinery for safeguarding industrial peace and achieving higher production. The FACT has set up a Joint Council of Management and is one of the first industrial establishments in the country to establish such a council. The Joint Council which was inaugurated in May 1959 has been functioning quite successfully. The Council has made important contributions in various fields—towards increasing productivity, improving working conditions, preventing accidents, and encouraging suggestions from employees. It functions in an executive as well as an advisory capacity. A healthy convention has developed that all unanimous recommendations of the Council are implemented by the management as well as by the workers. As opportunities are provided to employees' representatives to get a more intimate knowledge of the problems of management, they get a better insight into the manner in which such problems are solved. The Council consists of ten

members, five representing the management and five representing the workers. The convention followed is to elect a Chairman from amongst the representatives of workers when the Vice-Chairman is elected from amongst management members and *vice versa.*

The general condition of industrial labour in this District can be said to be staisfactory . Social security measures are provided for under the provisions of the Workmen's Compensation Act, (1923) the Employees Provident Fund Act, (1952) the Employees State Insurance Act,(1948) and the Kerala Maternity Benefit Act, (1957). Statutory provisions have been incorporated in the Plantations Labour Act to provide plantation labourers with free living accommodation. The subsidised industrial housing scheme sponsored by the Government of India has also helped to solve the housing problem of industrial labourers to a certain extent. Some of the large factories provide residential quarters for a limited number of members of their staff. Free medical aid is provided for the workers and the members of the families of the resident workers of the estates under the Plantations Labour Act. The Employees State Insurance Scheme provides certain medical benefits to industrial labourers covered by the Act. In addition, in some factories, the management provides free medical aid to their workers. The employees in the Travancore Rayons obtain free medical aid and treatment at the M. Ct. M. Chidambaram Chettiar Memorial Hospital, located in front of the factory. First aid facilities are provided in almost all factories as per the provisions of the Factories Act.

Facilities for out-door and in-door games are provided in all the major industrial concerns. Personnel or Welfare Officers are appointed in almost all of them. In addition, co-operative societies, reading rooms, libraries and ladies clubs are organised in some of the notable industrial establishments. Canteens, creches and rest and tiffin rooms are also provided. The industrial canteen of the Travancore Rayons, Perumbavur, built at a total cost of Rs. 6 lakhs has a built -in plinth area of 15,000 square feet and it is one of the largest of its kind in Kerala. It has been carefully planned to provide the maximum facilities for workers and staff, both men and women and incorporates

up-to-date arrangements for the preparation of wholesome food in hygienic conditions. The FACT, Ltd., Alwaye runs a High School at Eloor where instruction is imparted both through English and Malayalam media for the benefit of the employees' children. The strength of the school stands at 1,330. Employee amenities in the FACT also include a substantially subsidised canteen, a subsidised sports association and free medical facilities to the dependents of employees. The workers who work in the night shift in the Indian Aluminium Company, Alwaye,are given free food by the employees. Workers in the Standard Vacuum Oil Company and Burmah Shell, Ernakulam, are given tea free of cost. The FACT and Travancore Rayons supply milk freely to certain categories of workers. Transport facilities are provided by the management of Messrs. FACT Ltd., Indian Aluminium Co., Alwaye and Travancore Rayons, Rayonpuram.

The Tata Oil Mills, Ernakulam, has also provided several amenities to its employees. The employees colony at Tatapuram has a co-operative store, a co-operative society, a small dairy unit and a small poultry unit managed by the employees. There is a dispensary with a full-time doctor. There are two Recreation Clubs aided by the company. The employees have their own *Kalasamithi* or Arts Club and a monthly journal, *Kalarangam*, both subsidised by the company. The T.O.M.Co. Employees Provident Fund Association maintained by the voluntary contributions from well - paid employees and augmented by yearly donation from the company helps those employees who are in dire need. It is a tradition of this voluntary association that those who contribute do not seek help from the Fund. In addition to this respository of help to the needy employees, ex-employees and their respective families, the J. R. D. Tata Trust makes a generous yearly donation for financing the higher studies of employees' children of outstanding ability and promise who cannot afford to go up for higher studies and also for helping those in dire need due to sickness and misfortune. Help from this Fund is extended to those deserving cases not only among employees, ex-employees and their respective families but also to the members of the public in the surrounding areas. Tatapuram has also its own little park and playground for the children of the employees.

As for wage levels, it may be stated that the average earnings of a worker in this District enable him to make a fairly reasonable living. It may be pertinent to point out in this connection that the workers earnings in this District have increased considerably during the last one decade. To cite an example, the average annual income of an employee in the FACT which stood at Rs. 1,303 in 1950, rose to Rs. 1,520 in 1955, to Rs. 1,725 in 1958 and to Rs. 2,540 in 1961. Minimum wages have been prescribed in a number of industries in this District, e.g., motor transport, toddy tapping, agriculture, oil and flour mills, coir industry, cashew industry, stone-breaking and stone crushing industry, leather industry, plantation, tile etc.

APPENDIX

Summary statement of possible large scale and ... as per the Report of The Techno-Economic ...

Name of industry	Suggested capacity	Investment (Rs. lakhs)	Net Value of output per year (Rs. lakhs)	Employment potential (No. of workers)
1	2	3	4	5
A AGRO-BASED INDUSTRIES				
i Automobile Tyre factories	2 units having 10.8 lakh automobile tyres per year total capacity (1)	600	270	1,500
ii Reclamation of Rubber	3,000 tons per year	30	60	135
B FOREST-BASED INDUSTRIES				
Second Bamboo-Bagasee paper factory	50 tons per day	250	93.75	1,000
C CHEMICAL INDUSTRIES				
i Essential oil industry (2 units) (2)	For making 10 cwts. of Ionone, 1 cwt. of ginger oil, 20 lbs. of Vettiver oil per day in each unit, besides toilet preparations & flavouring esences	20	10	200
ii Alcohol-based industries	2,000 tons of chloroform per year	10	6	75
iii Manufacture of Polyvinyl Chloride plastic	1 ton per day	6	3	50
iv Pharmaceuticals (Phyto-chemical industries)		1,000	250	2,000
v Ossein & Gelatine	300 tons per day	200	13	500
Chemicals and Fertilizers vi F.A.C.T. Expansion	During the 2nd Stage: Ammonium Sulphate 40,000 tons, Ammonium Phosphate 16,500 tons After 3rd Stage of Expansion: Ammonium Sulphate 165,000, Ammonium Phosphate 132,000 and Ammonium Chloride 24,500	1,400	432	2,000

(1) The second unit proposed is in Kottayam

(2) The second unit proposed is in Anjarakandi (Cannanore District)

I

medium scale industries (1960-61 to 1970-71)
Survey,* Kerala

Power requirement K.W.	Public or private sector	Location	Reasons for suggesting the project and other remarks
6	7	8	9
600	Private	Alwaye	
100	Private or Public	Kalamasserri	Since it is much likely that the production of natural rubber can meet the demands reclamation of rubber will be useful to reduce the gap.
2,500	Private	Alwaye	Raw material used will be bamboo and bagasse. Since the bamboo has flowered fresh bamboo seedling will only be ready at the beginning of the Fourth Plan. Bagasse too will be available in full during the Fourth Plan when all the proposed sugar factories are in production. Investment is, therefore possible only during the Fourth Plan.
100	Private	Perumbavur	Availability of lemon grass, cinamon and vettiver roots from which essential oils can be extracted.
200	Private	Alwaye	1 Provide an important outlet for the industrial alcohol to be manufactured in the State. Would also supply chloroform for the phyto-chemical industry 2 Revison of these quantities may be made after demand studies
100	Private	Alwaye	Availability of calcium carbide and chlorine. There is demand for it from the house wiring & cable industry.
NA	Public	Neriamangalam	
75	Private	Near Alwaye	
1,800	Public	Alwaye	1 To meet the increasing fertilisers consumption. 2 The first stage involving an investment of about Rs. 600 lakhs is complete.** 3 Second stage of expansion during Plan will use Texaco process will not consume much of additional power. Investment in this stage will be Rs. 400 lakhs.

* Some of the proposals have since been carried out.

** At the end of the 1st Stage of their expansion programme, capacity of FACT, was Ammonium Sulphate 60,000 tons, Ammonium Chloride 8,000 ton, Ammonium Phosphate 16,500 tons, Super Phosphate 44,000 tons, Sulphuric Acid 97,000 tons per annum. The capacity could not, however, be put into full operation because of power.

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APPENDIX

Summary statement of possible large scale and as per the Report of the Techno-Economic

Name of industry	Suggested capacity	Investment (Rs. lakhs)	Net Value of output per year (Rs. lakhs)	Employment potential (No. of workers)
1	2	3	4	5
vii Caustic soda (T. C. Chemicals Expansion)	50 tons of caustic soda per day	150	50	750
viii Rayon Pulp and transparent papers (Expansion Scheme)	20 tons per day of cellulose pulp from cotton linters and waste to be used for manufacturing yarn & cellophane paper	100	50	375
D MINERAL BASED INDUSTRIES				
Sheet-glass (based on quartz sand)	600 tons	29.5	19.8	300
E ENGINEERING INDUSTRIES				
NEW INDUSTRIES				
(a) Basic Metals Pig Iron	10,000 tons 62,040	60	20	150
(b) Secondary Production of Steel High Carbon Millets and Rods	15,000 126,050	220	50	250
(c) General and Mechanical Engineering Industries				
i Wire ropes	5,000 tons	75	126	125
ii Machine Tools	Rs. 2 crores worth	Total: 400 Foreign exchange component 250	80	3,000
iii Ship-building	80,000 tons	2,000	280	5,000
iv Boats and Crafts	1,500 Nos.	120	60	500
v Marine Diesel	500 Nos.	40	20	200
Expansion of existing Industries				
i Ferrous	50,000 tons	150	150	200
ii Aluminium extruded products	10,000	100	80	200

I

medium scale industries (1960-61 to 1970-71)
Survey, Kerala—*Contd.*

Power requirement kw.	Public or private sector	Location	Reasons for suggesting the project and other remarks
6	7	8	9
8,000	Private	Alwaye	To reduce imports of caustic soda and meet the increasing demand.
1,200	Private	Perumbavur	1 Plant to be set up during the Third Plan. 2 A capacity of 10 tons per day of cellulose pulp to be set up in the Third Plan and expanded to 20 tons per day in the Fourth Plan. Corresponding capacities of yarn and cellophane paper also be created. Total investment of Rs. 100 lakhs would be equally divided between the Third and Fourth Plans.
200	Private	Alwaye	Availability of raw material & growing demand.
3,200	Private	Cochin	Entirely based on steel scrap. Regional demand for malleable castings.
1,000	Private	Alwaye or Cochin	To meet regional demand for the production of ACSR and wire ropes.
500	Private	Cochin	To meet the estimated future demand of shipbuilding yard.
5,000	Private	Cochin	Essentially to meet the large gap that exists in the country and the net demands. Also, the requirement of industrial fuels for these industries is comparatively small. Electric power les made available in Kerala.
5,000	Public	Cochin	Under the Central sector.
600	Private	Cochin	
1,000	Private	Cochin	
1,000	Private	Alwaye	
500	Private	Alwaye	

APPENDIX II

Industrial Classification of Trade Unions in the Ernakulam District, 1961-62

Industry	No. of Unions	Membership
1 Agriculture and Livestock Production		
(a) Production of agricultural crops etc.	2	NA
(b) Plantation:—Rubber	6	363
2 Forestry	1	73
3 Fishing	6	698
4 Stone-quarrying	2	NA
5 Grain Mill Products Rice Mills	1	NA
6 Bakery Products	1	7
7 Miscellaneous Food preparations		
Edible oils	2	NA
Others	2	NA
8 Beverages	9	1,333
9 Tobacco manufacture Beedi industry	3	224
10 Textiles	9	18
11. Spinning, weaving etc.	1	14
(a) Cotton mills	3	577
(b) Silk mills	2	338
(c) Others	2	NA
12 Manufacture of Coir	1	NA
(a) Coir factory	4	42
(b) Others	4	732
13 Saw Mills	2	142
14 Furniture	1	8
15 Printing, Publishing etc.	7	1,008
16 Chemicals and chemical products	3	563
17 Basic Industrial Chemicals Fertilisers	1	356
18 Vegetable oil and fats	2	280
19 Medicinal and Pharamaceuitcal products	1	38
20 Matches	2	40
21 Petroleum	5	907
22 Tiles	1	137
23 Glass and glass products	1	21
24 Non-metallic mineral products	1	192
25 Ferrous (Iron & Steel) Others	1	NA
26 Manufacture of metal products	1	35
27 Metal Container, Steel Trunks etc.	2	59
28 Manufacture of machinery	1	19
29 Repair & Service Workshops	1	30
30 Electrical machinery apparatus	2	NA
31 Equipment for generation	4	161
32 Storage of Electricity—Others	1	52
33 Transport equipment	1	22
34 Ship building	2	133
35 Construction: Highways, Roads, Bridges, etc.	6	239
36 Electricity, Gas & Steam	1	68

APPENDIX II

Industrial Classification of Trade Unions in the Ernakulam District, 1961-62—*contd.*

	Industry	No of Unions	Membership
37	Water supply	1	112
38	Sanitary service	9	634
39	Shop employees	5	480
40	Other trades	5	187
41	Bank	6	285
42	Commercial concerns	2	1,163
43	Insurance—Life	1	12
44	Railway staff, porters, etc.	2	158
45	Bus	2	168
46	Taxi	1	51
47	Rickshaw pullers	3	169
48	Carts	1	98
49	Lorry	3	17
50	Other Motor Transfort	1	NA
51	Water Transport	1	1,969
52	Steamer service—boatmen	10	1,633
53	Port Trust	4	14,102
54	Work in ports, harbour etc.	4	118
55	Working Journalists	1	31
56	Other commercial and business service	2	13
57	Educational service	2	52
58	Service of local bodies	4	256
59	Hospitals and Dispensaries	1	18
60	Theatres	2	100
61	Other Recreation services	1	23
62	Personal services	1	NA
63	Miscellaneous	13	694

N. A. Not Available

CHAPTER VI

BANKING, TRADE AND COMMERCE

History of Indigenous Banking

Before the appearance of Joint Stock Banks money lending operations in the District were carried on by a class of indigenous money lenders. Lawson gives the following description of the system of indigenous banking which prevailed in Cochin in the middle of the 19th century:— "It is customary in these parts to raise money by mortgage of lands and houses in time of need, and very precise laws are enforced for the benefit of all parties concerned. The deed must be drawn up on stamped paper, in which it is stated that the repayment of the loan is to be made within a certain period, that the mortgagee is to receive interest at a fixed rate per mensem, and (or) the rent of the houses and the produce of the land; and *sometimes* that the mortgage is to be returned at any time before it falls due on the payment of principal, interest and charges."[1] Very often exorbitant rates of interest were charged by the money lenders. They ranged from 12 to 60 per cent depending on the credit-worthiness and need of the borrower.

It was in the field of agricultural credit that the indigenous money lenders played a dominant role. Several of them were *Jenmies*, who lent money to others of their own status for long periods on mortgage. Loans so granted carried low rates of interest ranging between 3% and 7% in view of the high standing of the borrowers. Small land owners owning only "Subsistence holdings" borrowed from village money lenders and small *hundi* merchants on the security of their properties. They also took advances on the security of standing crops for which the rate of interest was generally high. Another method of borrowing was by depositing title deeds. It was only rarely that money was lent on pro-notes. While mortgage loans were granted generally for a period of two to three years, produce loans or pro-note loans were only for short periods ranging from

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1 *British and Native Cochin*, Lawson, p. 65

three to six months. The rate of interest varied from 6¼ to 9 per cent. The small land owners, not being very affluent, had to pay rates of interest varying from 12 to 24 per cent and in rare cases up to 36 per cent. Nevertheless, the documents showed only an interest rate of 6 per cent.

Traders in crops also used to give substantial credit to agriculturists. Dealers in commercial produce gave short-term credits on the promise of the produce being sold to them at a pre-determined price at the harvest. But such transactions were not many. Tenants used to get advances from their landlords on an interest of 12 per cent. 20 per cent was the common grain interest for seeds for each crop season. Money lenders, other than landlords, took three *paras* for every 10 *paras* of seeds and a few even four *paras*. But, with the beginning of controls in war time, such loans practically disappeared. There were also landlords who took not more than 10 per cent for each crop season on grain advances. The rate of interest for poor tenants and labourers for small sums of Rs. 5 or 10 was usurious. It was even one Anna (6 paise) per Rupee per month. There were even debtors who paid one Anna per Rupee as interest per week. Attempts at the legal fixing of interest by the Government only resulted in advance deductions of the principal paid to a borrower at the commencement of the loan or in inflating in the bond the principal due.

Rural Indebtedness

Indebtedness among the rural and urban population has been for long a serious economic problem in this District as elsewhere in the State. In the absence of any detailed survey we cannot give any accurate figures of the extent of indebtedness. The Cochin Agrarian Problem Enquiry Committee (1949) drew the pointed attention of the Government to the existence of this problem in an acute form and suggested several remedial measures such as an Insolvency Act for adjustment of debts and relief to agriculturists. The Committee was convinced that there might be many cases of debtors whose debts exceeded their repaying capacity. But regarding the extent of debt the Committee in its Report makes the following observations. "We have very little information about the average debt of different classes of land holders according to the area they own or cultivate. High prices for produce have totally changed the debt situation. Many holders of lands have redeemed

their mortgages and sold portions of their holdings to repay their debts. An enquiry into the agricultural indebtedness as to the existing amount of debt, and the surplus or deficit economy of agriculturists of different incomes under the new conditions of the increased crop cultivation and living is necessary."[1] Though no such enquiry as recommended by the Committee has since been held in this District, the Reserve Bank of India conducted a Rural Credit Survey in the Quilon District in 1951-52. The general findings of this survey may be deemed to have as much bearing on conditions prevailing in this District as in the area covered by it. The survey revealed that agricultural indebtedness was indeed a serious problem in Kerala.[2]

In this context, reference may be made to the findings on indebtedness in two select centres of the District, viz., Njarakkal and Ernakulam, as revealed by the report of two sample surveys. In 1956 the Travancore-Cochin Economic Research Council conducted a study of the economy of the fisherfolk living in the coastal areas of the State. Njarakkal in the Vaipin Island in this District was one the areas covered by the survey. Of the 60 households chosen for the study none was found to be debt-free and the total volume of debts was Rs. 12,740, the average debt per household being Rs. 212. All the households except one had debts less than Rs. 500. More than three-quarters of the number of loans were found to have been incurred for non-productive purposes. The survey in the Ernakulam town which pertained primarily to the family budgets of industrial workers living in the area was conducted by the Cochin Government in 1944-45. The report of the survey throws some light on the problem of urban indebtedness in the District. Out of 261 families of workers employed in organised industries covered by the survey 134 (51.30%) admitted indebtedness. The debts totalled Rs. 22,469, showing an average debt of Rs. 167-10-10 for each of the indebted families. Most of the debts were found to have been inherited from ancestors who had lived neither well nor wisely. Marriage expenses, doctor's fees, druggist's bills and expenses for purchase of property or construction of houses were the primary causes of borrowings. The average amount spent by them towards

1 *Report of the Agrarian Problem Enquiry Committee, Cochin.* 1949, p. 231
2 See *Trivandrum District Gazetteer*, pp. 415-416 and *Quilon District Gazetteer*, pp. 354-357

repayment of debts each month was 1.53 per cent of the total income. The report sums up the main causes of the state of indebtedness among the industrial workers of Ernakulam as follows:—(1) Ordinary everyday wants, (2) Sickness, (3) Marriages and (4) Old outstanding debts.

General Credit Facilities

The classification of credit agencies adopted by the All India Rural Credit Survey conducted by the Reserve Bank of India in 1951-52 applies to the general credit facilities available in this District. They are of nine categories, viz., Government, co-operatives, relatives, landlords, agriculturist money lenders, professional money lenders, traders and commission agents, commercial banks and others. Government, co-operatives and commercial banks have come into prominence in the field only in recent times. The traditional agencies providing credit have been relatives, landlords, professional money lenders etc. This has been particularly true in the case of the rural folk. The sample survey of the economy of the fisher folk at Njarakkal, to which reference has already been made, revealed the relative importance of the various credit agencies. More than 70 per cent of the 60 households covered by the survey in the place got their loans either from indigenous bankers or owners of nets and boats. Two persons had taken loans from banks and only one from a co-operative society. The survey report makes the following observation. "Credit facilities are meagre. The bulk of the households are exploited by usurious money lenders—the merchants as well as the owners of boats and nets. Co-operative credit and State aid are conspicuously absent. Modern banking has not benefited the fisherfolk."[1]

Joint Stock Banks

In spite of the absence of banking habit among the relatively backward sections of the rural community like the fishermen, it must be conceded that it has taken root in the urban or semi-urban areas of the District. Almost all important towns have their own banking institutions. The major banking centres in the District are Cochin, Ernakulam and Alwaye. A complete list of places where banks are functioning and of the names of the banks has been given at Appendix I to this Chapter. It may be noted

1 *A Study of the Economy of the Fisherfolk in Travancore-Cochin* (1956). p. 96

that there are a number of banks registered in this District itself. In 1962 the Bank of Cochin, Ernakulam, the Cochin Commercial Bank, Mattancherri, Cochin, the Federal Bank, Alwaye, the Joona Bank, Mattancherri, Cochin, and the Sree Poornathrayeesa Vilasam Bank, Thrippunithura were the Class A II—Non-Scheduled Banks registered in the District functioning with paid-up capital and reserves of Rupees 5 lakhs and above.[1] In addition, there were also a number of Class B and Class C Non-Scheduled Banks registered in this District functioning in important centres. A detailed statement of the Class A, Class B and Class C banks with such particulars as the date of registration, paid-up capital, reserves, number of offices in the country and dividend declared as seen from the balance sheet as on December 31, 1962 is given at Appendix II.

When compared to other Districts, the banking habit in Ernakulam area is in fact more developed. The banks functioning here are comparatively stronger units. Nevertheless, there are still vast sections of the people who are not banking-minded. The State Bank of Travancore which functions as a Subsidiary of the State Bank of India has been trying to fill in this vacuum by opening more and more Branch Offices in the rural and semi-urban centres in the District.

A reference may be made in this connection to the recent trends in the field of banking activity in the District. In spite of the distinct service rendered by the large network of banks for the development of the banking habit among the people, the smaller ones among them have been experiencing several set-backs and reverses in recent years. The failure of the Palai Central Bank in 1960 was the first in a series of shocks which the banking industry had to face. The other factors which created difficulties for the smaller banks were the increasing competition from non-Kerala banks with their larger resources, the Gold Control Rules enforced by the Central Government and the restrictions imposed on advances against immovable properties as also on the conduct of *kuries*. In the wake of these difficulties several small banks could not function as viable units and had to be amalgamated with or absorbed by bigger banks. This process of amalgamation of small banks with larger ones

1 The Sree Poornathrayeesa Vilasom Bank has since merged with the Canara Bank.

which was initiated in Kerala by the Reserve Bank of India in the wake of the liquidation of the Palai Central Bank does not seem to have ended. But it is now generally accepted that small banks too have a very significant role to play in the national economy by catering to the needs of small traders and other operatives who rarely get any substantial help from large banking institutions. Despite the recent crisis of confidence in the banking industry, the existing small banks seem to have consolidated their position and regained the confidence of the customers.

Brief accounts of some of the individual banking institutions registered in the District are given below:—

Bank of Cochin, Ltd., Ernakulam

This bank, started in 1928, is one of the Class A II Non-Scheduled banks registered in the District. In 1963 in addition to the registered office and a branch office at Ernakulam, it had branches at Cochin and Willingdon Island. Before the integration of Travancore and Cochin, the Bank of Cochin was the only institution authorised to carry on the foreign transactions of the Government of Cochin. According to the Balance Sheet as on 31st December 1962, the bank had an authorised capital of Rs. 12,00,000 and a Reserve Fund of Rs. 2,15,750.50.

Federal Bank, Ltd., Alwaye

This bank was incorporated as a Public Limited Company in April 1931 under the name of the Travancore Federal Bank Ltd., with its registered office at Nedumpuram. The office was subsequently shifted to Alwaye in December 1946. The institution assumed its present name in January 1950. In addition to the Head Office at Alwaye, the bank has ten branch offices in Ernakulam District (Alwaye, Ankamali, Ernakulam, Edavanakkad, Kalamasseri, Kolancherri, Kothamangalam, Kuthattukulam, Moovattupuzha and Perumbavur), one in Trichur District (Chalakudi) and two in Kottayam District (Munnar and Thalayolaparambu). It is conducting *kuries* on an extensive scale and thereby rendering distinct service in the matter of mobilisation of savings. The interest charged on loans ranges between 6 per cent and 12 per cent. Most of the creditors are agriculturists-cum-traders and consequently a part of the credit allowed by the bank is used for agricultural

development. According to the Balance Sheet as on 31st December 1962 the bank had an authorised capital of Rs. 15,00,000 and a Reserve Fund of Rs. 3,06,427.

Josna Bank, Ltd., Cochin

Established with registered office at Cochin in 1944, the Josna Bank has 14 branches in all including those at Ernakulam, Kumbalangi, Cherai and Thrippunithura in this District. The authorised capital of the bank is Rs. 25,00,000. In 1963 it had a Reserve Fund of Rs. 71,100. In its rural branches the bank has been fairly successful in collecting deposits and mobilising savings. At the same time, in commercial towns it has been carrying on purely commercial business and rendering financial aid to industries.

Parur Central Bank Ltd., Parur

This bank formerly known as "The Town Bank Ltd., Parur", was registered as a Private Limited Company in September 1930 under the Travancore Companies Act with an authorised capital of Rs. 20,000. It assumed its present name in 1950 and was converted into a Public Limited Company in the succeeding year. In 1963 the authorised capital of the bank was Rs. 5,00,000. In addition to the Registered Office in Parur and a Branch Office in Ernakulam, the Parur Central Bank has its branches at Eloor and Kaladi in this District. The rates of interest charged by the bank vary from 5¼ per cent to 10½ per cent per annum. Loans are given mainly to help business, agriculture and industry against the security of real estates, goods, gold, marketable shares and fixed deposits.

Bank of Alwaye Ltd., Alwaye

This Bank was incorporated in 1942 with a capital of Rs. 1,00,000 with the object of helping merchants dealing in lemon grass oil, pepper etc. Loans are allowed against the security of these commodities. In 1963 the bank had a reserve fund of Rs. 2,07,000. The rate of interest levied by the bank on advances made against pledge of lemon grass oil and such other hill produce as well as against hypothecation of all approved commodities is 12 per cent.

Dakshina Bharat Bank Ltd., Ernakulam

Established in 1946 with registered office at Ernakulam, this bank had an authorised capital of Rs. 5,00,000 and

a Reserve Fund of Rs. 77,000 in 1963. It has its branch offices at Cochin and Thrippunithura. The rates of interest charged vary from 9 to 12 per cent. Its clients are mostly small businessmen. In 1963 the credit facilities allowed to small scale and cottage industries came to about Rs. 1,00,000.

Post Office Savings Banks.

Apart from Joint Stock Banks referred to above, the Post Offices in the District also transact banking business. In 1964 there were 220 Post Offices doing Savings Bank work.

KURIES

The *Kuri* is an indigenous institution for providing credit facilities as well as for investment of savings. In the Travancore area of the District where the Travancore Chitties Act of 1120 (1934-35) is followed, the transaction is called *Chitti* while in the Cochin area where the Cochin Kuries Act of 1107 (1931-32) is applied, it is called *Kuri*. Otherwise, there is no distinction between *Chitti* and *Kuri*.

A *Kuri* or *Chitti* has a limited number of tickets. The ticket holder, i.e., the subscriber, subscribes to the *Kuri* by periodical instalments till the termination of the *Kuri*. The prize is determined by lot or auction. The foreman of the *Kuri* is responsible for its conduct under the terms of the *Vaimpu* or *Variola* which is an agreement between the subscribers and the foreman.

There are other types of transactions in which the right to a prize is wholly dependent upon the drawing of lots and whereby only some but not all of the subscribers are entitled to get the prize without any liability to pay future subscriptions. In some of these transactions the number of tickets is limited and in some others it is not so. This type of transaction is not a *Kuri* as defined in the Kuries Act. It may be called lottery, though some of such transactions are actually being conducted in the name of 'Savings Scheme' or other names.

The total number of *Kuries* registered in the Ernakulam District during the ten year period from 1953 to 1963 came to 839. The total value of business turn-over has been estimated at Rs. 78,06,752.50. The *Kuries* were being conducted

by Banking and Non-banking institutions, Co-operative Banks, Co-operative Societies, Devaswom institutions, important churches etc. There are also a few individuals who conduct *Kuries*. However, the majority of the *Kuri* foremen are Banking Companies.

The previous sanction of the Inspector-General of Registration is necessary for starting *Kuries* with a *sala* of Rs. 100 and more, and such *Kuries* are to be registered in the office of the Sub-Registrar (who is also the Registrar of Kuries) in whose jurisdiction the *Kuri* is to be started. Periodical inspection of the records maintained by foremen is conducted by the Chitti Inspector, Ernakulam, every six months.

CO-OPERATIVE CREDIT SOCIETIES & BANKS

Co-operative Credit Societies and Banks play their role in providing credit facilities to the people. The first co-operative society to be started in the District is the Edavanakkad Service Co-operative Society No. 1 registered on Edavam 31, 1089 K.E. (13th June, 1914). Originally an agricultural credit society, it was later converted into a Regional Co-operative Bank serving the needs of a larger area. It was again reorganised as a Service Co-operative in line with modern trends and came to be called the Edavanakkad Service Co-operative Bank, Limited, No. 1. In 1963 it had a share capital of Rs. 26,650 including the Government's share contribution of Rs. 10,000. The bank had 665 members on its rolls. The deposits held by the bank amounted to Rs. 58,145 and its borrowings came to Rs. 37,650. The bank had advanced loans to its members to the tune of Rs. 69,000. It was also conducting two *Kuries* the *sala* of which came to Rs. 7,500. With its long and varied experience the Edavanakkad Service Co-operative Bank now holds a position of pre-eminence among the Co-operative Credit Societies of the District.

District Co-operative Bank

The Ernakulam District Co-operative Bank, Ltd., was registered on December 10,1960. It meets the credit requirements of the primary societies affiliated to it. In June 1963 it had a total membership of 257 and a share capital of Rs. 9,25,450. It is the only bank, financing credit societies in the District.

Land Mortgage Banks

There are also two Primary Land Mortgage Banks in the District, one at Ernakulam and the other at Thodupuzha. Their main function is to help the agriculturists who require long-term loans for discharge of prior debts and improvement of their agricultural lands. The Ernakulam Land Mortgage Bank was established on December 10,1962 and the Land Mortgage Bank, Thodupuzha, on February 14, 1963. In June 1963 the former had a membership of 511 and a share capital of Rs. 5,920 and the latter had 285 members and a share capital of Rs. 6820.

Agricultural Credit Societies

In 1961-62 there were 17 large-sized Agricultural Co-operative Credit Societies and 238 small-sized Societies. Of the 17 large-sized societies 16 stood converted into Service Societies. The Government had contributed a sum of Rs. 1,20,000 to these societies in the form of share capital. Including this amount the total paid-up share capital of these societies as on 30th June 1962 was Rs. 7,10,353. They had a total membership of 13,830 and had issued loans to the tune of Rs. 24,36,963 during the year. This is indeed an impressive record for such a small number of societies as seventeen.

The total paid-up share capital of all the 238 small-sized societies came to Rs. 14,93,253 during the same year. This amount was inclusive of the Government's share which came to Rs. 5,000. The total membership of the societies came to 82,460. A sum of Rs. 18,490 had been issued by them as loans to members.

Non-Agricultural Credit Societies

In June 1962 there were 64 Non-agricultural Credit Societies in the District, with a membership of 19,120 and a paid-up share capital of Rs. 78,536. The working of these societies had been on the whole satisfactory. A sum of Rs. 19,140 was issued by them as loans to members during the year 1961-62.

INSURANCE

Life Insurance has made rapid strides in the District in recent years. The Life Insurance Corporation (L.I.C.) of India has a Branch Office each at Ernakulam,

Cochin and Alwaye. The Branch Office at Ernakulam is located on the Mahatma Gandhi Road and it controls the business of Kanayannur Taluk. The Branch Office at Cochin is situated at Palluruthi and controls the business of Cochin Taluk. The Branch Office at Alwaye is situated on the Vengola Road and controls the business of Alwaye, Moovattupuzha, Kunnathunad and Parur Taluks. One Assistant Branch Manager (Development) is functioning at Moovattupuzha to assist the Field Officers in the mofussil areas. The Thodupuzha Taluk is under the control of the Sub-Office of the Life Insurance Corporation functioning at Palai in Kottayam District. The total number of Insurance Agents working in the Ernakulam District as on 31st December 1963 was 801. The following is a statement of the total number of policies issued and total sum assured for each of the years from 1958 to 1964.

Number of Insurance Policies and Sums assured (1958—64)

Year	No. of Policies	Sum assured
1958	8,305	Rs. 2,43,77,550
1959	8,153	Rs. 3,50,33,950
1960	8,991	Rs. 3,34,37,750
1961	11,745	Rs. 3,86,34,500
1962-63*	15,670	Rs. 6,09,90,150
1963-64†	12,491	Rs. 4,05,75,950

Small Savings Scheme

The Ernakulam District has always been in the forefront of the National Savings drive. In 1962-63 the District was adjudged the winner of the State award of Rolling Cup for having collected the maximum amount under National Savings Securities. The total net collection was Rs. 26,97,000. Similarly 9,064 CTD (Cumulative Time Deposit) accounts were opened during the year and the State rolling shield was awarded to this District in recognition of this achievement also. In order to create local enthusiasm and support to the scheme, Savings Committes have been formed in different centres of the District. Industrial savings committees function in all the major industrial units in the Udyogamandal area with adequate representation

* 15 months from 1-1-1962 to 31-3-1963

† 12 months from 1-4-1963 to 31-3-1964

to employees and employers. The FACT, the TCC and the Ogale Glass Works have persuaded almost all their employees to join the CTD scheme. In the FACT there are nearly 2450 accounts, in the TCC 590 and in the Ogale Glass Works 460. Similarly, all the Dock and Port workers have also joined the CTD scheme. It is a special feature of the District that the services of teachers in educational institutions and college planning forums are utilised for the promotion of the National Savings drive. The target fixed for Ernakulam during the year 1963-64 was Rs. 32 lakhs for securities and Rs. 2 lakhs for premium prize bonds and in view of the intensive drive carried on at all levels, the District had recorded a net collection of 36·76 lakhs by December 1963 and exceeded the target well in advance of the close of the financial year. A statement showing the target and details of collection under various heads in the District from 1958-59 to 1962-63 is given below.

Collections under National Savings Scheme, 1958-63

(Rs. in thousands)

Saving Scheme	1958-59		1959-60		1960-61		1961-62		1962-63	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net
Target (Rs. in lakhs)	33		33		35		47		36	
Total	**1,532**	**N.A.**	**2,539**	**1,918**	**7,181**	**4,050**	**7,710**	**2,928**	**7,978**	**2,697**
N. P. S. Cs.	870	N.A.	2,226	1,656	1,983	1,442	2,032	1,633	2,924	2,200
T. S. D. Cs.	659	N.A.	313	262	237	117	694	356	341	215
15 A. Cs.	3	N.A.	..	..	13	(—)7	1	(—)20	..	(—)24
P. O. S. B.	..	..	..	..	4,795	2,346	4,562	554	3,922	(—)466
C. T. Ds.	..	..	..	..	92	91	265	249	700	681
P. Bs.	..	..	..	..	61	61	156	156	91	91

N. P. S. Cs.—National Plan Savings Certificates

T. S. D. Cs.—Ten Year Treasury Savings Deposit Certificates

15 A. Cs.—Fifteen Year Annuity Certificates

P. O. S. B.—Post Office Savings Bank

C. T. D.—Cumulative Time Deposits

P. Bs.—Prize Bonds

N. A.—Not available

AID TO INDUSTRIAL DEVELOPMENT

Kerala Financial Corporation

The Kerala Financial Corporation has played an important part in financing the industrial development of Ernakulam District. It grants loans primarily for the expansion of existing industrial units and also, in special cases, for working capital on a limited scale. The loans are ordinarily repayable in 20 half-yearly instalments with an interest of 7% per annum. Till 31st March 1964 the Corporation had received 33 applications from this District requesting for loan amounts totalling Rs. 1,17,69,500. Out of these it had accepted 23 applications and sanctioned loans totalling Rs. 70,71,800. A sum of Rs. 55,51,800 had been disbursed till the end of March 1964. The industries benefited by these loans are the following:—(1) Plastic moulded goods (2) Cotton Textiles (3) Electric Light & Power (4) Edible Oils (5) Boat Building (6) Fertilisers (Organic), (7) Coir Manufacture (8) Saw Mills (9) Cable (10) Canning and Preserving (11) Fruits & Vegetables (12) Iron Steel Casting & Forgings (13) Cold Storage (14) Agricultural Implements and (15) Manufacturing of Ice. It is seen that the lion's share of the loan amount disbursed by the Corporation had gone to the Cotton Textile and Boat Building industries.

With effect from 1960-61 the Kerala Financial Corporation has also been authorised to issue loans to small-scale industries. Till 31st March, 1964 thirty-five (35) applications had been received from the small-scale industrialists in the District requesting for loan amounts totalling Rs. 18,99,891. The Corporation had accepted 23 of these applications and sanctioned loans to the tune of Rs. 8,92,500. Out of this a sum of Rs. 7,24,750 had been disbursed till the end of March 1964. The industries benefited are (1) Carpentry Work and Furniture (2) Plastic Industry (3) Saw Mills (4) Aluminium Industries (5) Rubber retreading (6) Solvent Extraction Industries (7) Tile manufacture (8) Pharmaceutical industry (9) Ice factory (10) Electricals and Electrical Appliances (11) Bicycle and Cycle part manufacturing and (12) Brass and Metal Idnustry.

Assistance to Small Scale Industries

The Department of Industries and Commerce of the Government of Kerala issues loans to small scale industries under the State Aid to Industries Act (1952) and the Small Scale Industries Aid Scheme. Loans under the State Aid to Industries Act bear simple interest at the rate of 5¼ per cent per annum and are re-payable in yearly or half-yearly instalments within a period of 20 years. Those granted under the Small Scale Industries Aid Scheme carry simple interest at the rate of 3½ per cent per annum and may be repaid in yearly or half-yearly instalments within a period of 11 years. The loans granted under the State Aid to Industries Act in this District upto March 31, 1964 amount to Rs. 33,76,720 and those under the Small Industries Aid Scheme to Rs. 5,16,600. The industries benefited are the following: (1) Coir Industry (2) Metals and Galvanisers (3) Saw Mill Industry (4) Ink and Polish (5) Bakery (6) Handloom Industry (7) Automobile Works (8) Cine Studio (9) Casting (10) Steel Works (11) Printing (12) Tiles (13) Book Binding (14) Canning (15) Wood Industry (16) Printing Industry (17) Iron Articles (18) Lime Industry (19) Food Products (20) Leather Industries (21) Medicines (22) Confectionery (23) Assembling of Clocks (24) Design Glass (25) Automobile Industry (26) Soap Industry (27) Sodium Salicate (28) Smokeless Oven Industry and (29) Oil Mill Industry.

Aid to Weavers' Co-operative Societies

The Department of Industries and Commerce gives loans to Weavers' Co-operative Societies. The loans granted towards share capital carry an interest of 8¼ per cent and are repayable in two annual instalments. The loans granted towards working capital do not generally carry any interest and are to be repaid in ten equal annual instalments. They are sanctioned to weavers' societies for meeting the recurring expenditure in connection with the purchases of yarn, payment of wages to weavers etc. Dye house loans carrying an interest of 3⅝ per cent are also granted. The purpose of these loans is to help the societies to open Dye Houses according to the approved pattern of the All India Handloom Board. A statement showing the loans granted

to the Weavers' Co-operative Societies in Ernakulam District during 1954—1962 under each of these categories is given below:—

Loans granted to Weavers' Co-operative Societies (1954-55 to 1961-62)

Year	Share Capital Loan		Working Capital Loan		Dye House Loan	
	No. of Societies	Amount Rs.	No. of Societies	Amount Rs.	No. of Societies	Amount Rs.
1954-55	..	..	3	8,400	..	..
1955-56	..	..	1	2,800	..	..
1956-57	2	1,920	7	49,340	—	—
1957-58	1	735	3	19,000	..	—
1958-59	5	3,510	..	..	1	1,500
1959-60	3	1,522.50	..	..	1	1,500
1960-61	4	1,950	1	10,000	..	—
	2	26,500(Loans for loom accessories and power connection)				
1961-62	5	7,449.76	..	..	..	..

Kerala State Industrial Development Corporation

The Kerala State Industrial Development Corporation started in July 1961 with the object of stimulating and assisting in the industrial development of the State has helped considerably in the industrial development of the Ernakulam District. Till July 1964 it had granted financial assistance to eight important industrial units in this District. It has taken shares to the extent of Rs. 5,00,000 and agreed to underwrite equity shares to the extent of Rs. 15,00,000 in the Seshasayee Wire Ropes, Ltd. A loan of Rs. 4 lakhs has been given to the Anand Water Meter Manufacturing Co., Cochin. The Corporation has also agreed to underwrite equity shares to the extent of Rs. 34,00,000 and to grant a long-term loan of Rs. 38,00,000 to the Cominco Binani Zinc Ltd., Alwaye. Again, it has taken shares to the value Rs. 1.62 lakhs in the Packaging Paper Corporation, Ltd., and agreed to underwrite shares to the value of Rs. 25 lakhs in the Premier Cable Co., Ltd., Karukutti and Rs. 7 lakhs in the Southern Gas Ltd., Alwaye. Moreover, the Corporation has also agreed in principle to underwrite Rs. 26 lakhs of the shares of the Travancore-Cochin Chemicals Ltd., Alwaye in connection with the expansion programme of the factory at Eloor and to participate to the value of Rs. 25 lakhs in the share capital of the Transformers and Electricals Kerala, Ltd., Ankamali.

Kerala State Small Industries Corporation

The Kerala Sate Small Industries Corporation, Ltd. set up in July 1961 with headquarters at Trivandrum for speeding up the development of small scale industries in the

State has also made its contribution to the industrial development of the District. It runs a Raw Material Depot in the Willingdon Island. A Sales Emporium has been established at Ernakulam, opposite to the College Ground on the Mahatma Gandhi Road, in order to afford marketing facilities to the small scale industrialists. The Corporation purchases articles from small scale industrial units on consignment basis taking only a nominal trade discount. Outright purchase is also sometimes made. In addition, the Corporation is managing the Industrial Estate at Veli, Palluruthi.

Currency and Coinage

In erstwhile Cochin indigenous gold coins called *puthens* ceased to be legal tender in 1900 and British Indian coins were introduced for all purpose of financial transaction. In the Travancore area such coins as the *Sirkar rupee*, *chuckram* and *cash* were in circulation. After the integration of the States of Travancore and Cochin in July 1949 the Travancore coins also ceased to be legal tender. The most recent currency reform in the District is the decimal system of coinage which came into force in April 1957.

TRADE AND COMMERCE

Imports and Exports

The Ernakulam District has the place of honour on the commercial map of Kerala. It has won this unique position because of the location of the Cochin Harbour, the "Queen of the Arabian Sea", in this District. The bulk of the seaborne trade of Kerala is carried on through the Port of Cochin. There has been a phenomenal increase in recent times in the volume of trade carried on through the Cochin Port. Whereas in 1902-1903 the total value of the exports and imports of Cochin was Rs. 3,03,48,074, it had risen to Rs. 1,58,33,71,169 in 1960-61. With tea topping the list and cashew kernels running a close second in value, Cochin occupies the third position among the ports in the country in point of foreign exchange earnings through exports, the first and second ones being Bombay and Calcutta respectively. Cochin's annual contribution to the country's foreign exchange earnings averages between Rs. 120 to 130 crores.

The most important imports into the District are Asphalt, bitumen, dammar and pitch, Chemicals, Coal,

Cotton, Drugs, Flour, Rice, Wheat and other grains, Cashew-nuts, Hardware, Iron & Steel, Machinery, Manures including Bone Meal, Paints & Varnish, Paper, Petroleum products including Patrol, Fuel Oil, Kerosene oil etc., Salt, Gingelly seeds. Sulphur, Tin Plate, Tobacco, Wire, Copra, Oil cakes and Soaps. At the same time the most important items of export are Bricks, Sand and Tiles, Bunker Coal, Bunker Oil, Coir Yarn, Mats, Mattings, Rope, Carpets etc., Cashew Kernels, Ores, Coconut Oil, Lemon Grass Oil, Cashew Shell Oil, Rubber-raw and manufactured, Pepper, Ginger, Cardamom, Tea, Timber, Turmeric, Betel nuts, Chemicals, Coconuts, Coffee, Fish-salted and unsalted, Soape, tc.

A statement of the most important of exports with details of their destination is given below:—

Destination of Exports

Items	Countries to which exported
1 Coir & its products	
(a) Fibre	Italy & Yugoslavia
(b) Yarn	U.K., U.S.A., Austria, Belgium, Burma, France, Germany, Holland, Italy, Japan, Norway, Portugal & Switzerland.
(c) Mat, Mattings, Rope, Carpet etc.	U.K., Canada, U.S.A., South America, Africa Australia, Germany, Sweden,
2 Cashew Kernels	U.K., Canada, U.S.A., Australia, Germany & U.S.S.R.
3 Rubber	Wholly to Indian Ports. Small quantities to U.K.
4 Spices	
(a) Pepper	U.K., Canada, U.S.A., Czechoslovakia & France.
(b) Ginger	U.K., Canada, U.S.A., Arabia (25 per cent of the total) Germany & Malaysia
(c) Cardamom	U.S.A., Africa, Denmark, Finland, Germany, Norway, Sweden, U.S.S.R. (Half of the total).
5 Tea	U.K., Canada, U.S.A., Africa, Australia, Holland, New Zealand
6 Arecanut	Only to Indian Ports.
7 Coconuts & Copra	Only to Indian Ports
8 Fish, Salted & Unsalted and Prawns	U.S.A., Burma, China & Malaysia.
9 Lemon grass oil	U.K., U.S.A., & France.

A detailed statement of the tonnage of cargo imported into and exported from the Port of Cochin in 1960-61

is given in Tables A & B at Appendix III to this Chapter.

A detailed statement of the total value of exports and imports at Cochin for each of the years from 1902-1903 to 1960-61 is also given at Appendix IV to this Chapter.

Some of the items of export from Cochin Port such as Cashew Kernels, Coffee, Coir, Ginger, Lemon Grass Oil, Pepper, Tea etc., are important earners of foreign exchange. The total value of these items of export for 1960-61 is given below.

Value of Important Exports, 1960-61

Item	Value (Rs.)
Cashew kernels	14,54,98,689
Coffee	1,48,16,532
Coir yarn	4,84,79,394
Coir mats, rugs etc.,	1,81,76,336
Coir fibre	14,50,619
Ginger	1,31,53,226
Lemon grass oil	2,00,76,054
Pepper	7,97,87,678
Tea	22,67,54,838

A detailed commodity-wise statement of the value of exports and imports at Cochin for the period 1960-61 is also given in Tables A & B at Appendix V to this Chapter.

A considerable portion of the trade of the District takes place through rail route also. The figures of the volume of export and import trade carried on by rail route in this District for the year 1959-60 are given in the tables given at Appendix VI. The tables show that the total volume of inward goods traffic came to 12,928,445 maunds while the total volume of outward goods traffic came to 22,336,503 maunds.

A large volume of trade is also carried on through the waterways of this District. The principal landing places are Alwaye, Ernakulam and Cochin. The total traffic carried by the waterways in respect of the industrial areas of Alwaye and the port area of Cochin together with its suburb, Ernakulam, is 4,09,090 tons made up of Alwaye South bound and the North bound of Ernakulam and Cochin, the industrial area of Alwaye accounting for 3,45,235 tons which is mainly to and from Cochin and is 84 per cent

of the total. A statement of the traffic carried on by the waterways from each of these principal landing places is given at Appendix VII. It may be noted that the bulk of the traffic is in tiles, bricks and clay, timber, bamboo and fire wood, fertilisers, vegetables, petrol and other oils, rice, provisions, cement, sugar, salt, fish and prawns, coal etc.

A statement of the over-all traffic carried on from the principal landing places mentioned above through water, road and rail routes is also given at Appendix VIII.

Regulated Markets

There are no regulated markets in this District.

Wholesale and Retail Trade

The most important wholesale trade centre in the Ernakulam District is Mattancherri, Cochin. It is an important terminal market for most of the agricultural produces of Kerala. The Central Warehouse maintained at Cochin by the Central Warehousing Corporation and the several go-downs owned by banks, merchants, exporters and importers provide ample facilities for storage. Rice, coconut and its products such as oil, oil cake, copra, coir etc., pepper, ginger, lemon grass oil, tapioca, wheat, turmeric, bone meal, fish, rubber etc., are some of the commodities handled at Cochin. The commodities that arive here are exported through forwarding and commission agents. More than 100 forwarding agents exist at Cochin. Besides being an exporting centre, this market is also a distributing centre for rice and grains.

Rice arrives at Cochin by sea, rail and road. The important feeding markets for rice are Erode, Salem, Tiruppur, Coimbatore, Palghat and Andhra Pradesh. Transactions take place in two ways. (1) The mill owners from the supplying centres send large quantities of rice at their expense to the wholesale dealers and arrange to sell them according to the prevailing market rates on commission. (2) The wholesalers engage commission agents for purchasing rice from the different supplying markets. Brokers are also present in the market for effecting sales between the representatives of the mill owners and the wholesale dealers as well as between wholesale dealers and big retailers.

Most of the wholesale dealers are doing business on commission basis with the mill owners. Thus the market practices with regard to rice in the Cochin market are many and varied. The price of rice in the Cochin market depends on the price in the supplying centres and also on the availability of stock.

Coconut and its products arrive at Cochin by *valloms* and barges from the nearby coastal regions such as Parur, Shertallai, Cranganore etc. Coconut is marketed directly to exporters as well as through brokers. The peak period of arrivals is during January to June.

Coconut is processed into oil and exported to outside markets. Cochin is an important centre of trade in coconut oil. There are a large number of oil dealers in the market here. They purchase oil from millers and export it to Bombay, Calcutta and Madras. There is an Oil Merchants' Association in the Cochin market. There is also a forward market functioning at the centre and transacting ready business of buyers and sellers. The Cochin price of oil invariably influences the Alleppey price.

Oil cake which is a by-product in the manufacture of coconut oil is also one of the important commodities transacted at Cochin. In the Cochin market the millers sell oil cake to wholesale dealers and retail dealers directly and through brokers.

Cochin is also an important centre for transactions in coir. About 60 per cent of the coir business here is done through the Cochin Co-operative Marketing Society. The Central Society advances money to the primary societies and gets coir from them. It then sells the commodities to exporters either directly or through commission agents.

Pepper which is one of the major dollar earners of Kerala is one of the principal commodities transacted at Cochin. The marketing of pepper is done through trade associations. Brokers act as intermediaries among traders in the ready business. Exporters used to contact the brokers for their requirements. For every 2½ tons of pepper marketed, the broker gets Rs. 6.25 from the purchaser as well as from the village merchant or producer, whatever may be the case. Garbled pepper is sold by forward market. The difference between the market quotations for garbled and ungarbled pepper is usually about Rs. 100 per candy. Ginger is also another major commodity transacted at

Cochin. Its marketing is done in the same way as pepper is marketed.

Cochin is an important marketing centre for Lemon grass oil. It is usually marketed through brokers. Lemon grass oil is brought to Cochin mainly from Alwaye and Kuruppampadi. The rates at these feeding centres are controlled by the Cochin price. In Cochin Lemon grass oil is sorted into different grades and exported. There is an essential oil grading station at Willingdon Island under the Ministry of Food and Agriculture, Government of India, to check the quality of the Lemon grass oil exported to foreign countries.

In addition to Cochin, the most important wholesale trade centres in the District are Parur, Alwaye, Ernakulam, Perumbavur, Kuruppampadi, Moovattupuzha and Thodupuzha. The names of the most important commodities handled at each of these centres are given below.

Parur:—Rice, Tapioca, Coconut oil, Coir, Coconut, Copra, Sweet Potato and Arecanut

Alwaye:—Rice, Lemongrass oil, Cashew, Vegetables, Rubber, Pepper and Hill produce, Ginger, Pulses and Grains

Ernakulam:—Tapioca, Rice, Ginger, Pulses, Grains, Sugar, Chillies, Bananas, Coconut oil and Cake

Perumbavur:—Rice, Lemongrass oil, Pepper and Ginger

Kuruppampadi:—Lemon grass oil

Moovattupuzha:—Pepper, Paddy and Arecanut

Thodupuzha:—Ginger, Pepper, Turmeric, Cardamom and Arecanut.

Apart from the wholesale trade centres, there are retail trade centres in almost every part of the District. In fact, the bulk of the internal trade is carried on by retail traders in their shops which lay scattered all over. The total number of registered dealers assessed to Sales Tax by the Department of Sales Tax and Agricultural Income Tax in the District came to 3,587 in 1962-63. The total value of the turn-over assessed came to Rs. 78,24,01,964.03 and the total amount of tax levied came to Rs. 3,41,40,825.87.

Rural Markets, Fairs, Melas etc.

Almost every village in the District has its market. According to the *Administration Report of the Panchayat Department* for 1961-62 there were 44 public markets and 38 private

markets in this District. Some of the markets are held once a week or on certain specified days of the week. Others are daily markets. In these markets the daily requirements of the poeple such as vegetables, fish, coconut, etc., are sold. Apart from these rural marketing centres, there are certain important fairs and *melas* held in connection with the festivals in temples or churches. The Alwaye Taluk is noted for the most important of the annual fairs held in the District, viz., the *Sivarathri Mela* which is held on the banks of the Periyar river in Alwaye town in connection with the *Sivarathri* festival in the month of Kumbham (February—March). Two to three lakhs of people attend this *mela* which can easily stand comparison with the *Kumbhamela* at Prayag. Almost all commodities are transacted here. In addition to the *Sivarathri mela* at Alwaye, there are several fairs held in connection with the *Perunnals* in such churches as those of Manjapra, Kanjur, Edappilli, Pallippuram, Vallarpadam, Mulanthuruthi, etc. The *Utsavams* in temples are also occasions for the holding of fairs. In these *melas* coppr and aluminium vessels and several other articles of domestic use required by the people are assembled for sale. The cattle fair held at Kureekad in Kanayannur Taluk may also be mentioned in this connection. A list of important fairs or *melas* is given at Appendix IX to this Chapter.

Co-operative Marketing and Trade

Co-operation has made inroads in the fields of marketing and trade. There are six Co-operative Marketing Societies in the District. Of these the Lemon Grass Marketing Society at Kuruppampadi and the Pepper Marketing Society at Thodupuzha are the most important. These two societies were included among the Plan Schemes, and an amount of Rs. 845,49 was disbursed to them during 1961-62 by way of subsidy from the Government.

With the increasing importance attached to Co-operative Farming, efforts were made to reorient the existing farming societies to enable a well-planned development in this sector. There are two Collective Farming Societies and nine Joint Farming Societies in this Disrtict covering an area of 664 acres and having a membership of 920, and a share capital to the tune of Rs. 17,216 including the Government's share which comes to Rs. 952.

Under a centrally sponsored programme for the setting up of a net-work of Consumer Co-operative Stores a Wholesale Co-operative Store has been registered in Ernakulam

in 1961-62 with a number of primary stores affiliated to it. The organisation of a District-level Co-operative Printing Press is also a notable achievement of the year.

Fair Price Shops

The Civil Supplies Department functioning under the administrative control of the Board of Revenue is concerned with the work of stabilisation of the price of rice in the open market and the regulated distribution of available supplies of rice through fair price shops. The present system of fair price shops was introduced with effect from 1957. The rice required for distribution through these shops is allotted to the State by the Government of India and made available from the Central Storage Depots of which there are seven in Kerala including one at Cochin.

The distribution of rice from fair price shops is done through a system of ration cards issued to the heads of families under a scheme of informal rationing introduced in the State with effect from November 1964. The quantum of rice fixed for each family depends on the number of inmates. Rice and wheat are made available in fair price shops for the use of the consumers on a fifty-fifty basis (i.e. 160 grammes of rice and 160 grammes of wheat per adult). In 1963 there were 31 wholesale fair price shops and 779 retail fair price shops in this District. The Taluk-wise distribution of shops is given below.

Taluk	No. of Fair Price Shops Wholesale	Retail
Kanayannur	..	142
Moovattupuzha	9	118
Thodupuzha	8	105
Cochin	..	107
Parur	5	98
Kunnathunad	4	111
Alwaye	5	98

The Kerala Food stuffs Distribution Control Order 1960 regulates the working of the fair price shops in the State. The Tahsildars supervise the working of the shops in their respective Taluks. At the Revenue Divisional level the work is supervised by the R.D.O. of the Division. He is assisted in this work by a Civil Supplies Deputy Tahsildar whose job is the inspection of fair price shops. The District Collector exercises over-all supervisoin and control over

the arrangements at the District level. District and Taluk Food Advisory Committees have been set up in order to advise the authorities in regard to the working of these shops.

The system of fair price shops has been of great help to the common man. Some of the Taluks have derived considerable benefit from them. For example, Thodupuzha is a highly defecit Taluk where cash crops are grown and there is a paucity of paddy fields. Paddy and rice required for this Taluk have to be brought down from other places. The holders of rice cards in this Taluk are therefore deriving the maximum benefit from the fair price shops.

Trade in foodgrains has been licensed in Kerala with effect from April 1, 1963. Under the Kerala Foodgrains Dealers' Licensing Order issued on February 15, 1963 trade in foodgrains can be conducted only by persons who are granted license for the purpose by the District Collector. The license is to be renewed every year. Eleven varieties of foodgrains including rice and wheat are covered by the order.

The Kerala Sugar Dealers' Licensing Order 1959 and the Sugar Movement Control Order 1959 are also in force. In view of the scarcity of sugar this item is sold to consumers through licensed dealers at prices fixed by the District Collector. As in the case of food grains, the distribution of sugar is also supervised by the District Collector and the Tahsildars.

The Rice Milling Industrial (Regualtion) Act XXI of 1958 issued by the Central Government is also in force. The work of rice mills is regulated under the provisions of the Act The District Collector is the licensing authority under this Act.

Merchants Associations

Being the most important commercial and trading centre in the State, Cochin has a number of trade organisations. The most important of them are the Cochin Chamber of Commerce, Cochin and the Indian Chamber of Commerce, Cochin. The Cochin Chamber of Commerce was founded on 28th December 1857 by a small group of European traders who had a clear vision of the immense possibilities for the exchange of the products of the Malabar Coast and adjoining

areas with the outside world. It is the oldest chamber of its kind in Kerala and one of the oldest in the whole of India. The chamber has played an important part in the civic affairs of Fort Cochin and also in the development of Cochin as a Major Port. One of the most important sections of the chamber is its Weighing and Measurement Department . In 1961 there were 41 members in the chamber. The organisation is represented in the Cochin Harbour Advisory Committee, the Kerala Sales Tax Advisory Committee, the Consultative Committee of Shipping Interests in the Overseas Trade, the Port Export Advisory Committee, the Cochin Customs Advisory Committee, the Cochin Port Operating Committee, the Indian Standards Institution, the Southern Railway Station Consultative Committee, the Anti-Pilferage Committee, Cochin Port, the Mattancherri Foreshore Reclamation Committee and the Cochin Dock Labour Board.

The Indian Chamber of Commerce, Cochin, started functioning in 1898 under the name of Cochin Native Merchants Association. Its name was changed to Cochin Merchants Association in 1912 and to Indian Chamber of Commerce in 1930. The chamber serves the interests of the Indian business community at Cochin by making necessary representations to the Government, both Central and State, on matters affecting trade and commerce, by collecting and circulating statistics and other information of commercial interest among its members etc. It maintains a Measurement Department which issues certificates of measurement, weight, quality, origin etc., in respect of cargo for shipment. In 1960-61 the chamber had 203 members. Among the associations affiliated to it are the Grain Merchants Association, Cochin, the Cochin Coir Merchants Association, Cochin, the Cochin Oil Merchants Association, Cochin, the India Pepper and Spices Trade Association, Cochin and the Tobacco and Beedi Leaves Merchants Association, Cochin. The chamber is represented on a number of important bodies such as the Cochin Harbour Advisory Committee, the Cochin Customs Advisory Committee, the Regional Posts and Telegraphs Advisory Committee, the Export Promotion Advisory Council, the Telephone Advisory Committee, Cochin area, the Kerala State Planning Advisory Board, the Kerala State Co-ordination Committee, etc. It is also a member of the Federation of Indian Chambers of Commerce and Industry, New Delhi and the Indian

Standards Institution, New Delhi. The Indian Chamber of Commerce also maintains a good library containing books and publications of interest to the commercial community. In 1960-61 it had 1560 volumes.

In addition to the Cochin Chamber of Commerce and the Indian Chamber of Commerce, the following trade associations are also functioning in the District.

1 Ernakulam Chamber of Commerce, Ernakulam
2 North Travancore Chamber of Commerce, Alwaye
3 Tea Trade Association, Cochin-1
4 Coir Yarn Balers' Association, Cochin-1
5 Indian Prawns Exporters' Association, Cochin-2
6 Dairy Products Importers' Association, Cochin-2
7 Cochin Customs Clearing Agents' Association, Cochin-2
8 Kerala State Small Industries' Association, Cochin-2
9 Kerala State Vegetable Merchants' Association, Central Office, Ernakulam-1
10 Kerala State Oil Millers' & Merchants' Association, Ernakulam Mills Building, Ernakulam
11 All Kerala Chemists & Druggists' Association, C/o G. K. Syndicate, Shanmughom Road, Ernakulam
12 Ernakulam-Cochin Merchants' Association, Shanmughom Road, Ernakulam
13 Hotel & Restaurant Proprietor's Association, Ernakulam
14 Food Grains Merchants' Association, Alwaye
15 Moovattupuzha Merchants' Association, Moovattupuzha
16 Merchants' Association, Thodupuzha

Weights and Measures

The old units of weights and measures prevailing in the District are bewildering in their variety. Though they are known by the same name in different parts, their multiples and sub-multiples differ widely. A statement giving the new units of weights and measures in the metric system together with appropriate tables for their conversion into the old units is given at Appendix X to this Chapter. The metric system of weights and measures was introduced in Kerala according to a phased programme. The metric system of weights was introduced on October 1, 1958 and became the only legal system on October 1, 1960 allowing a transitional period of 2 years for the complete changeover to the new system. The metric systems of length measures and capacity measures were introduced on October 1, 1961 and became the only lawful systems on October 1, 1962. It may also be noted that the mertic system of units

of weights and measures except land measure became compulsory throughout the country on the first of August 1963. Certain difficulties were, however, experienced in the change-over in respect of land measure and so the dead line for this was fixed as April 1, 1965. There is a District Inspector of Weights and Measures at Ernakulam to attend to matters concerning the change-over from the old to the new system.

The reaction of the trading public and the public in general to the introduction of the metric system has been favourable. The metric system is unique in that the multiples and the sub-multiples bear a decimal relation taken in order. This simplifies the process of calculation and obviates many of the difficulties experienced in day-to-day transactions. With the introduction of the new system the varied systems of weights and measures prevailing in different parts of the District have been replaced by a single and uniform system. This has been a great blessing to trade.

APPENDIX I

Banks & their Branches, Sub—Offices etc., as on December 31,1962

1	Alwaye	Bank of Alwaye	(R.O)
		Bank of Baroda	(P.O.)
		Catholic Union Bank	(B)
		Central Bank of India	(P.O)
		Federal Bank 2	(R.O) (B)
		Indian Bank	(B)
		Indian Insurance & Banking Corporation	(B)
		Perumbavur Bank	(B)
		South Indian Bank	(B)
		State Bank of Travancore	(B)
2	Ankamali	Catholic Union Bank	(B)
		Federal Bank	(B)
3	Arakkunnam	Cochin Commercial Bank	(S.O)
4	Ayyampilli	Merchants' Bank of India	(B)
5	Chambakara	Josna Bank	(B)
6	Cherai	Josna Bank	(B)
7	Chowarah	Sree Poornathrayeesa Vilasom Bank	(B)
8	Cochin	Bank of Baroda	(B)
		Bank of Cochin	(B)
		Bank of India	(B)
		Bank of Madura	(B)
		Canara Bank	(B)
		Canara Banking Corporation	(B)
		Canara Industrial & Banking Syndicate	(B)
		Catholic Syrian Bank	(2B)
		Central Bank of India	(B)
		Chaldean Syrian Bank	(B)
		Chartered Bank	(B)
		Cochin Commercial Bank 3	(R.O) (B) (S.O)
		Dakshina Bharat Bank	(B)
		Devkaran Nanjee Banking Co.	(B)
		Indian Bank	(B)
		Josna Bank	(R.O)
		Moolankuzhi Union Bank	(R.O)
		National & Grindlays Bank	(B)
		Punjab National Bank	(B)
		South Indian Bank	(B)
		Sree Poornathrayeesa Vilasom Bank	(B)
		State Bank of India	(B)
		State Bank of Mysore	(B)
		State Bank of Travancore	(B)
		Union Bank of India	(B)
		United Commercial Bank	(B)
9	Edappilli	State Bank of Travancore	(B)
10	Edavanakad	Federal Bank	(B)
11	Eloor	Parur Central Bank	(B)
12	Ernakulam	Bank of Cochin 2	(R.O) (B)
		Bank of India	(B)
		Canara Bank	(B)
		Canara Industrial & Banking Syndicate	(B)
		Catholic Syrian Bank	(3B)
		Central Bank of India	(S.B)
		Cochin Commercial Bank 2	(B) (S.O)
		Cochin Nayar Bank	(B)
		Dakshina Bharat Bank	(R.O)
		Dhanalakshmi Bank	(B)
		Ernakulam District Co-operative Bank	(H.O)
		Federal Bank	(B)

APPENDIX I

Banks & their Branches, Sub-Offices etc., as on December 31,1962—*concld*

		Indian Bank	(B)
		Josna Bank	(B)
		Latin Christian Bank	(R.O)
		Lord Krishna Bank	(B)
		Merchants' Bank of India	(R.O)
		Nedungadi Bank	(B)
		South Indian Bank	(B)
		Sree Poornathrayeesa Vilasom Bank	(B)
		State Bank of Travancore	(B)
		Suburban Bank	(B)
13	Kaladi	Catholic Union Bank	(B)
		Parur Central Bank	(B)
14	Kanjiramittam	Suburban Bank	(B)
15	Kolancherri	Federal Bank	(B)
16	Kuthattukulam	Federal Bank	(B)
17	Kothamangalam	Canara Bank	(B)
		Federal Bank	(B)
		Perumbavur Bank	(B)
		State Bank of Travancore	(B)
18	Kumbalangi	Josna Bank	(S.O)
19	Mulanthuruthi	Cochin Commercial Bank	(B)
		Sree Poornathrayeesa Vilasom Bank	(B)
		Suburban Bank	(B)
20	Moovattupuzha	Canara Bank	(B)
		Federal Bank	(B)
		Perumbavur Bank	(B)
		State Bank of Travancore	(B)
21	Njarakkal	Catholic Alliance Bank	(R.O)
		Merchants' Bank of India	(B)
22	Nayarambalam	Bhagavathi Vilasam Nayar Bank	(R.O)
		Commercial Bank	(R.O)
		Vaipin Catholic Bank	(R.O)
23	Palluruthi	Latin Christian Bank	(B)
		Moolankuzhi Union Bank	(B)
24	Parur	Catholic Union Bank	(B)
		Lord Krishna Bank	(B)
		Parur Central Bank	(R.O)
		South Indian Bank	(B)
		State Bank of Travancore	(B)
		Thiyya Bank	(B)
		Vijaya Lakshmi Bank	(R.O)
25	Perumbavur	Federal Bank	(B)
		Indian Overseas Bank	(B)
		Perumbavur Bank	(R.O)
		State Bank of Travancore	(B)
26	Piravam	State Bank of Travancore	(B)
27	Puthenpalli	St. George Union Bank	(R.O)
28	Thrippunithura	Catholic Syrian Bank	(B)
		Cochin Commercial Bank	(B)
		Dakshni Bharat Bank	(B)
		Josna Bank	(B)
		Oriental Insurance & Banking Union	(B)
		Sree Poornathrayeesa Vilasom Bank	(R.O)
		Suburban Bank	(S.O)
29	Varapuzha	Latin Christian Bank	(B)
30	Willingdon Island	Bank of Cochin	(B)
		Central Bank of India	(S.B)
		Indian Bank	(B)
		Indian Overseas Bank	(B)
		National & Grindlays Bank	(B)

B—Branch H.O.—Head Office S.B.—Sub-Branch
P.O.—Pay Office S.O.—Sub-Office R.O.—Registered Office

Number given against a bank indicates the number of its offices.

APPENDIX
Non-Scheduled

	Name of Bank	Year of Establishment
	1	2
	Class A—Non-Scheduled Banks having Paid-up Capital and Reserves	
1	Bank of Cochin, Ernakulam	December 17, 1928
2	Cochin Commercial Bank, Mattancherri-Cochin	January 3, 1936
3	Federal Bank, Alwaye	April 23, 1931
4	Joana Bank, Mattancherri-Cochin	June 12, 1944
5	Sree Poornathrayeesa Vilasom Bank, Thrippunithura *	February 21, 1923
	Class B—Non-Scheduled Banks having Paid-up Capital and Reserves	
1	Bank of Alwaye. Alwaye	May 29, 1942
2	Dakshni Bharat Bank, Ernakulam	May 31, 1946
3	Latin Christian Bank, Ernakulam	May 1, 1927
4	Merchant's Bank of India, Ernakulam	March 12, 1946
5	Moolankuzhi Union Bank, Cochin	October 18, 1929
6	Parur Central Bank,' Parur	September 17, 1930
7	Perumbavur Bank, Perumbavur	January 10, 1938
	Class C—Non-Scheduled Banks having Paid-up Capital and Reserves	
1	Bhagavathi Vilasam Nayar Bank, Nayarambalam	January 26,1930
2	Catholic Alliance Bank, Njarakkal	October 28,1928
3	Commercial Bank, Nayarambalam	November 9, 1928
4	Vijaya Lakshmi Bank Private, Parur	September 12,1929
5	Vaipin Catholic Bank, Nayarambalam	November 28, 1928

* This bank merged with the Canara Bank, Mangalore. on April 29, 1963

II

Banks

Paid up capital Rs. (In thousands)	Reserves Rs. (In thousands)	Total deposit Rs. (In thousands)	No. of offices in the Indian Union	Divident declared (per cent)
3	4	5	6	7
of Rs. 5 lakhs and above as on December 31, 1962				
460	215	4,338	9	5
585	130	9,286	14	..
500	306	7,079	11	9
953	71	3,694	14	..
296	259	11,170	14	..
between Rs. 1 lakh and Rs. 5 lakhs as on December 31, 1962				
100	188	1,062	1	7
125	62	7	4	..
156	52	86	4	..
250	172	1,739	3	..
85	26	251	2	..
163	83	2,278	4	6
111	85	2,263	5	6
between Rs. 50,000 and Rs. 1 lakh as on December 31, 1962				
46	12	122	1	–
46	37	285	1	–
50	24	119	1	–
45	49	750	1	
41	27	112	1	..

APPENDIX III

TABLE A

Tonnage of Cargo imported into the Port of Cochin, 1960-61

(Year—April to March)

Commodities		1960-61 Tonnes
Total		**1,621,261**
Animals and livestock		..
Asphalt, bitumen, dammar and pitch		31,191
Betelnuts		..
Bricks, sand and tiles		90
Candles, paraffin wax & tallow		2,667
Cement		31
China clay		119
Chemicals other than soda		24,362
Coal		349,820
Cotton		32,848
Cycles		..
Dates (wet)		325
Drugs		1,611
Electrical goods		854
Fibre		—
Flour		9,215
Grains:	Rice	75,593
	Wheat	11,993
	Others	15,374
Glassware		643
Groundnuts		..
Cashewnuts		64,566
Cashew kernels		99
Gunnies		2,712
Hardware		1,633
Iron and steel		17,497
Liquors		280
Lubricating oils		*
Machinery		15,971
Manure including bonemeal		119,329
Metals other than iron & steel		..
	Brass	203
	Copper	1,726
	Iron wrought	..
	Iron galvanised	209
	Lead	72
	Others	3,651
Molasses		..
Motor vehicles		58
Nails		268
Oilmanstores		1,106
Chillies		94
Oils other than petroleum and lubricating		6,061
Paints and varnish		1,373
Paper including old newspaper		9,226
Petroleum-		
	Petrol in bulk	*
	Petrol in tins	*
	Fuel oil in bulk	*
	Kerosene oil in bulk	*
	Kerosene oil in tins	*
	Other petroleum products	*

*Not separately available, but included under 'Sundries'.

APPENIX III

Tonnage of Cargo imported into the Port of Cochin, 1960-61—*Contd.*

Commodities		1960-61 Tonnes
Piecegoods		2,499
Plywood including tea chests and shooks		77
Railway plant and materials		..
Rubber, raw & manufactured		673
Salt		21,615
Seeds other than grains:		
Gingelly seeds		1,765
Cotton seeds		1,150
Others		2,326
Soda		24
Spices		..
Sugar		234
Sulphur		36,271
Tea		4
Timber		96
Tin plate		8,788
Tobacco including cigars and cigarettes		3,764
Turmeric		2
Twist and yarn		11
Wire		7,286
Wool, raw		1
Wattle bark		..
Miscellaneous—		
Beedi leaves		605
Coffee		26
Copra		19,568
Fish, salted and unsalted		..
Gums and resins		1,255
Oilcakes		5,395
Stationery		46
Soap		3,311
Military stores		468
Sundries		*695,961
Tanshipment cargo		5,260
Total landing dues and wharfage collected	Rs.	54,66,793

* Includes 'Lubricating oils' and 'Petroleum'

APPENDIX III

TABLE B

Tonnage of Cargo exported from the Port of Cochin, 1960-61

(Year—April to March)

Commodities		1960-61 Tonnes
Total		**466,176**
Bones and bonemeal		..
Bricks, sand and tiles		1,721
Bunker coal		5,211
Bunker oil		73,557
Carpets including matting (other than coir)		845
Cement		1,089
Coal		..
Coir:	Yarn	47,500
	Mats, matting, rope, carpets etc.	13,450
	Fibre	1,616
Cotton		1,610
Cotton waste		5,142
Grains:	Rice	..
	Wheat	..
	Others	3
Groundnuts		..
Cashewnuts		6
Cashew kernels		42,535
Gunnies		146
Hides and skins		172
Hemp		12
Iron and steel manufactured		99
Iron, pig		..
Jute		481
Lac		..
Mica		2
Manure		95
Molasses		..
Motor vehicles		83
Myrobalans		..
Ores:	Manganese	..
	Others	53,437
Oilcakes		3,896
Oils other than petroleum:		
	Coconut oil	14,874
	Groundnut oil	..
	Lemongrass oil	1,065
	Cashew shell oil	5,455
	Others	684
Piecegoods		3,041
Rubber, raw & manufactured		23,598
Salt		104
Scrap		77

APPENDIX III

Tonnage of Cargo exported from the Port of Cochin, 1960-61—*Contd.*

Commodities		1960-61 Tonnes
Seed other than grains:		
	Castor	..
	Linseed	..
	Others	201
Spices:	Pepper	17,648
	Ginger	7,177
	Cardamom	882
	Others	6
Sugar		234
Tea		39,363
Timber		6,092
Wooden shooks		535
Tobacco including cigars and cigarettes		22
Turmeric		653
Twist and yarn		796
Wool, raw		..
Miscellaneous:		
	Betelnuts	9,356
	Chemicals	9,722
	China clay	2
	Coconuts	20,375
	Coffee	5,036
	Copra	9,210
	Drugs	879
Fish, salted and unsalted (Prawns)		4,208
Fruits and vegetables		..
Matches		7
Nux vomica		220
Soap		2,783
Military stores		..
Sundries		*23,903
Transhipment cargo		5,260
Total shipping dues and wharfage collected	Rs.	15,67,711

*Includes 'Petroleum'.

APPENDIX IV

Total Value of Exports and Imports at Cochin

Year (July to June)	Exports Rs.	Imports Rs.	Total Rs.
1902-03	1,88,37,380	1,15,10,694	3,03,48,074
1903-04	2,05,60,570	97,13,611	3,02,74,181
1904-05	1,99,76,503	1,12,33,952	3,12,10,455
1905-06	2,00,49,452	1,88,27,192	3,88,76,644
1906-07	2,34,45,833	1,59,32,872	2,93,78,705
907-08	2,22,21,517	1,69,69,174	3,91,90,691
1908-09	2,98,52,576	2,39,35,036	5,37,87,612
1909-10	3,22,91,882	2,98,67,985	6,21,59,867
1910-11	2,97,77,854	2,37,23,560	5,35,01,422
1911-12	3,85,33,201	2,48,14,118	6,33,47,319
1912-13	3,78,38,273	2,96,32,344	6,74,70,617
1913-14	4,33,16,802	2,67,72,237	7,00,89,039
1914-15	3,61,97,465	2,87,68,977	6,49,66,442
1915-16	3,70,23,942	2,18,85,768	5,89,09,710
1916-17	3,84,20,388	1,52,39,623	5,36,60,011
1917-18	2,63,33,963	1,09,84,865	3,73,18,828
1918-19	4,64,98,838	1,75,43,277	6,40,42,115
1919-20	5,20,01,384	3,02,32,364	8,22,33,748
1920-21	4,91,85,301	4,35,82,076	9,27,67,377
1921-22	5,14,49,506	4,71,86,919	9,86,36,425
1922-23	4,49,70,604	4,94,49,747	9,44,20,351
1923-24	4,76,59,753	5,30,64,684	10,07,24,437
1924-25	4,54,27,659	6,39,49,755	10,93,77,414
1925-26	4,96,41,800	4,80,09,936	9,76,51,736
1926-27	5,14,18,116	5,57,36,352	10,71,54,468
1927-28	5,86,64,813	6,46,36,115	12,33,00,928
1928-29	5,74,27,893	5,56,57,338	11,30,85,231
1929-30	5,30,84,744	5,84,76,105	11,15,60,849
1930-31	4,83,58,976	5,41,68,089	10,25,27,065
1931-32	3,68,88,680	5,12,17,987	8,81,06,667
1932-33	3,94,73,566	5,86,25,812	9,80,99,378
1933-34	4,95,48,927	6,32,13,796	11,27,62,723
1934-35	6,13,45,743	6,76,65,696	12,90,11,739
1935-36	5,77,26,458	7,35,10,758	13,12,37,216
1936-37	6,23,04,879	7,58,80,914	13,81,85,793
1937-38	7,31,25,969	7,86,75,218	15,18,01,187
1938-39	6,61,28,048	6,43,69,226	13,04,97,274
1939-40	8,45,28,832	6,64,21,685	15,09,50,517
1940-41	9,84,50,182	6,93,44,821	16,77,95,003
1941-42	13,40,86,326	7,82,61,208	21,23,47,534
1942-43	15,83,06,475	10,44,47,366	26,27,53,841
1943-44	20,05,64,994	16,17,08,198	36,22,73,192
1944-45	19,38,51,259	26,65,79,829	46,04,31,088
1945-46	27,32,60,513	21,63,92,084	48,96,52,597
1946 47	29,66,65,934	31,35,65,210	60,92,31,144
1947-48	32,72,28,087	33,07,70.493	65,79,98,580
1948-49	32,94,85 208	32.54,71,466	65,49,56,674
1949-50	37,94,39,228	32,64,19,137	70,58,58,365
1950-51	65,62,38,139	32,61,13,498	98,23,51,637
1951-52	70,61,84,183	41,68,57,632	1,12,30,41,815
1952-53	64,96,73,635	47,22,23,629	1,12,18,97,264
1953-54	63,11,80,010	50,20,59,977	1,13,32,39,987
1954-55	66,23,70,711	50,62,34,340	1,16,86,05,051
1955-56	69,08,93,857	53,30,24,326	1,22,39,18,1[illegible]
1956-57	68,98,62,684	55,83,58,117	1,24,82,20,801
1957-58	70,32,89,008	52,99,94,940	1,23,32,83,948
1958-59	73,00,12,781	50,86,35,529	1,23,86,48,310
1959-60	83,41,03,077	54,42,62,521	1,37,83,65,[illegible]
1960-61	90,71,75,257	67,61,95,912	1,58,33,71,169

APPENDIX V

TABLE A

Exports

Valuation of Cochin Trade

Articles		1960-61 Rs.
Total		**90,71,75,257**
Betelnuts		4,65,11,962
Bricks and tiles		1,51,210
Cardamoms		75,86,650
Cashew kernels		14,54,98,689
Cashewnut shell liquid		48,52,788
Cement		4,40,800
Chemicals		1,58,48,025
Chillies		20,555
Coconuts		80,00,353
Coffee		1,48,16,532
Coir manufactured (coir yarn)		4,84,79,394
Coir mats, matting, rugs, etc.		1,81,76,336
Coir unmanufactured (coir fibre)		14,50,619
Cordage & rope of vegetable fibre)		19,14,650
Copra		1,95 90,071
Cotton	Raw	2,70,994
	Waste	72,30,170
	Piecegoods	1,46,39,182
	Twist and yarn	34,40,759
Drugs and medicines		19,52,030
Fibre for brushes & brooms		96,688
Fish and prawns		1,77,91,688
Fruits and vegetables		1,02,970
Ghee		..
Ginger		1,31,53,226
Grains, pulse and flour		3,335
Hardware and cutlery		4,60,763
Jute	Gunny bags	2,01,423
	Gunny cloth	500
	Mats, matting rugs, etc.	4,06,535
	Rope and twine	150
Machinery and millwork		1,41,608
Manures		1,19,450
Mats and matting (other than coir and rubber)		19,102
Metals, minerals and ores		2,17,74,337
Nux vomica		1,67,567
Oils	Coconut oil	3,17,20,824
	Ground nut oil	.
	Lemongrass oil	2,00 76,054
	Other oils	58 38 909
Oilcakes		13,98,824
Paper and pasteboard		1 24,73,067
Pepper		7,97,87,678
Provisions and oilmanstores		30,62,306
Rubber-Raw		8,02,54,894
Soap		72,21,097
Tea		22,67,54,838
Tobacco, manufactured and unmanufactured		28,330
Turmeric		8,14,899
Wood and timber		1,33,45,043
Wood manufacture		4,39,159
Wool manufactures (Carpets and rugs)		1,16,462
Sundries		1,28,31,818

APPENDIX V

TABLE B

Imports

Valuation of Cochin Trade

Articles		1960-61 Rs.
Total		**67,61,95,912**
Beedi		28,64,712
Belting for machinery		27,130
Books and printed matter		91,739
Bricks and tiles		15,010
Cement		5,100
Chemicals and chemical preparations		1,80,68,033
Chillies		4,40,415
Coal, coke and patent fuel		3,73,16,885
Coal tar and pitch		48,579
Coffee		..
Coir manufactured and unmanufactured		352
Copra		1,96,65,829
Cotton	Raw	8,68,62,671
	Piecegoods	2,37,80,092
	Twist and yarn	94,863
	Other manufactures	9,94,456
Drugs and medicines		17,52,825
Dyeing & tanning substances		6,27,993
Fish—salted and unsalted		..
Fruits and vegetables—		..
	Cashewnuts	5,95,26,614
	Dates	1,98,092
	Other sorts	20,72,347
Glass and glassware		47,056
*Grains, pulse and flour		..
	Rice	21,38,470
	Paddy	..
	Other sorts	1,55,33,620
Gums and resins		17,44,406
Hardware and cutlery, etc.		47,33,789
Jute	Gunny bags	50,91,923
	Gunny cloth	24,79,390
	Rope and twine	12,19,168
Liquors		20,08,999
Machinery and millwork		8,45,99,861
Manures		94,75,486
Mats and matting (other than coir & rubber)		375
Metals, minerals and ores		6,34,58,883
Molasses and jaggery		56,271
Oils	Fuel Oils	1,41,96,462
	Kerosene oil	4,04,26,729
	Lubricating oils	1,48,28,951
	Motor spirit	..
	Other oils	6,71,19,563
Oilcakes		14,97,712
Paints and colours		39,79,920
Paper and pasteboard		56,94,561
Paper—Old newspapers		..
Pencils (excluding slate pencils)		..
Pepper		..
Provisions and oilmanstores		16,74,708
Rubber—Raw		13,04,944
Salt		18,45,301
Seeds		42,74,072
Soap		71,09,201

*Imports on Government account not available

APPENDIX V

TABLE B

Imports—*concld.*

Articles	1960-61 Rs.
Staple fibre	..
Sugar	33,128
Tea	5,08,825
Tea chests and fittings	..
Tobacco, manufactured and unmanufactured	1,31,38,587
Umbrellas and fittings	15,770
Vehicles and parts thereof	3,07,702
Wax	13,74,833
Wood and timber	10,198
Wood manufactures	63,095
Wood pulp	78,86,279
Sundries	4,17,60,503

APPE

Tabl

Volume of Export trade carried on via rail-route h

Station	Coal & coke	Cotton raw	Cotton manu-factured	Dyes & Tans	Grains & pulses	Hides skins leather	Ground nuts	Metals & Manganese
1	2	3	4	5	6	7	8	9
Thrippunithura	..	..	..	..	..	..	..	.
Mulanthuruthi	..	3	..	..	10	..	..	123
Kanjiramattam	..	..	..	..	..	..	..	..
Piravam Road	..	..	..	..	28	10	..	39
Cochin Harbour Terminus	84220	292889	2476	2954	1224923	695	994	26428
Ernakulam Junction	..	446	45	2	43765	69	..	1130
Ernakulam Goods	..	905	800	40	38339	2985	..	7035
Edappilli	..	..	..	..	..	..	..	..
Alwaye	439	618	16795	16939	277	185	..	1763
Chowara	..	..	..	..	28	..	..	27
Ankamali for Kaladi	..	..	..	..	10	..	..	357
Karukutti	..	..	..	..	..	..	..	..
Koratti Angadi	..	..	..	..	13	..	..	..

Tabl

Volume of Import trade carried on via rail-route in

Station	Coal & coke	Cotton raw	Cotton manu-factured	Dyes & Tans	Grains & pulses	Hides skins leather	Ground nuts	Metals & Man-ganese
1	2	3	4	5	6	7	8	9
Thrippunithura	..	..	..	..	24	..		40
Mulanthuruthi	..	..	..	..	..	..	..	..
Kanjiramittam	..	..	.	..	..	..	..	..
Piravam road	..	..	..	..	..	..	..	..
Cochin Harbour Terminus	75872	18262	31376	3062	5756992	2162	1294	1051666
Ernakulam Junction	..	13	332	..	53280	..	..	55043
Ernakulam Goods	4709	252	10528	987	19368	755	5	234119
Edappilli	..	1	30	..	89	..	..	..
Alwaye	48728	39521	1948	84	199856	324	..	195649
Chowara	..	..	15	..	..	..	..	11
Ankamali for Kaladi	..	15	8	1	5817	..	..	345
Karukutti	..	..	..	..	2	..	..	4
Koratti Angadi		..	..	..	..	..	..	52

DIX VI

A

Ernakulam District during the year 1959-60 (in Maunds)

Provisions	Oils	Oil Seeds	Salt	Spices	Sugar	Wood unwrought	Other commodities	Total
10	11	12	13	14	15	16	17	18
..	..	..	..	..	..	..	131	131
..	..	..	..	..	..	..	582	1832
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	5	434
182078	257886	40616	425	46926	6866	215024	10458157	13081352
77	291187	..	..	51	4	18736	91994	457678
8958	6388360	3638	138	12171	51	66478	675353	7268566
..	..	..	..	..	..	162	49	211
1111	66244	7	..	1	..	288020	893611	1301271
..	1087	..	..	..	..	..	43	1185
74	..	14	..	5403	..	63291	155094	224249
38	..	..	..	..	..	..	4504	4542
..	..	..	..	..	..	..	..	13

B

Ernakulam District during the year 1959-60 (in Maunds)

Provisions	Oils	Oil Seeds	Salt	Spices	Sugar	Wood unwrought	Other commodities	Total
10	11	12	13	14	15	16	17	18
..	..	..	..	..	..	..	336	400
..	..	..	..	..	..	83	45	128
..	..	..	..	..	..	..	..	2
	..	..	..	..	..	..	..	76
686176	104848	45908	9734	148670	169414	93225	1959007	10157668
5933	117	3	23933	33	13369	1160	365602	518818
11827	121753	78	2416	131	2364	13706	391513	814517
2	..	..	..	..	..	15	1334	1471
41969	27478	634	60361	663	11439	5647	766361	1400636
..	..	..	..	..	..	..	130	156
39	94	..	26973	..	..	73	7209	34574
..	..	..	..	..	..	70	2457	2533
1	10	..	..	..	..	..	218	281

APPENDIX VII

Traffic Carried by the Waterways from each of the Principal Landing Places in the District

	Centre	Commodity	Tons
Alwaye	North Bound		
	Total		10,250
	Cranganore	Tiles, Bricks & Clay	1,250
		Timber , Bamboo & Firewood	7,500
	Trichur	Fertilizers	1,500
	South Bound		
	Total		241,390
	Ernakulam	Tiles, Bricks & Clay	30,600
		Arecanut	1,750
		Fertilizer	1,000
		Timber, Bamboo & Firewood	25,475
		Vegetables	2,750
		Others	2,500
	Cochin	Tiles, Bricks & Clay	45,600
		Arecanut	2,575
		Fertilizer	55,000
		Timber , Bamboo & Firewood	36,500
		Vegetables	2,540
		Others	6,500
	Kottayam	Tiles, Bricks & Clay Fertilizer	8,000
		Fertilizer	2,200
	Changanacherri	Tiles, Bricks & Clay	250
		Fertilizer	750
	Alleppey	Tiles, Bricks & Clay	500
		Fertilizer	3,700
	Quilon	Fertilizer	2,600
	Trivandrum	Fertilizer	1,500
		Acid	9,000

APPENDIX VII

Traffic Carried by the Waterways from each of the Principal Landing Places in the District—*Contd.*

	Centre	Commodity	Tons
Ernakulam	North Bound		
	Total		**8,500**
	Alwaye	Petrol & other oils	5,000
	Trichur	do.	3,500
	South Bound		
	Total		**50,790**
	Vaikom	Petrol & other oils	1,500
	Kottayam	do.	15,500
	Changanacherri	do.	2,500
	Alleppey	do.	10,790
	Quilon	do.	20,500
Cochin	North Bound		
	Total		**159,200**
	Ernakulam	Rice	25,000
		Provisions	25,400
		Cement	1,450
		Sugar	1,250
		Fertilizer	1,250
		Salt	2,150
		Others	50,000
	Alwaye	Rice	3,000
		Provisions	1,250
		Cement	250
		Fish & Prawns	1,350
		Sugar	500
		Salt	1,760
		Coal	1,500
		Others	29,500
	Trichur	Rice	2,500
		Provisions	2,100
		Cement	275
		Sugar	750
		Fertilizer	700
		Salt	1,775
		Coal	1,750
		Petrol & other oils	500
		Others	3,250

APPENDIX VII

Traffic carried by the Waterways from each of the Principal Landing Places in the District—*Contd.*

	Centre	Commodity	Tons
Cochin—*Contd.*	South Bound	**Total**	**422,020**
	Vaikom	Rice	2,750
		Provisions	1,640
		Sugar	250
		Fertilizer	350
		Salt	150
		Others	1,100
	Kottayam	Rice	25,000
		Provisions	28,640
		Fish & Prawns	500
		Sugar	2,750
		Fertilizer	2,250
		Salt	1,350
		Coal	15,000
		Petrol & other oils	3,500
		Others	22,300
	Athirampuzha	Rice	1,500
		Provisions	2,750
		Fish & Prawns	1,500
		Sugar	550
		Fertilizer	240
		Salt	150
		Petrol & other oils	250
		Others	1,250
	Changanacherri	Rice	12,000
		Provisions	12,750
		Fish & Prawns	2,500
		Sugar	1,100
		Fertilizer	1,750
		Salt	1,150
		Others	4,200
	Alleppey	Rice	20,000
		Provisions	81,750
		Sugar	3,600
		Fertilizer	12,250
		Salt	1,250
		Petrol & other oils	2,300
		Others	3,500

APPENDIX VII

Traffic carried by the Waterways from each of the Principal Landing Places in the District—*Concld.*

Cochin—*Concld.* Centre	Commodity	Tons
Quilon	Rice	20,000
	Provisions	25,800
	Cashewnuts	84,900
	Sugar	2,100
	Fertilizer	3,500
	Salt	1,250
	Petrol & Oils	5,750
	Others	2,500

APPEN-

An Analysis of the Over-all Traffic by principal landing places in

Name of the landing place	Taluk served	Total production Commodity	Tons	Local consumption Tons	Surplus available (4-5)
1	2	3	4	5	6
			465,936	**77,370**	**388,566**
Alwaye	Kunnathunad Alwaye	Tapioca	31,830	25,000	6,830
		Coconut	19,830	15,000	4,830
		Cashewnut	8,495	..	8,495
		Lemon Grass	262	..	262
		Vegetables	15,050	..	10,550
		Pepper	2,469	..	2,469
		Industrial Produces	275,000	..	275,000
		Tiles	96,000	35,400	60,600
		Timber & firewood	17,000	1,970	15,030
			244,632	**69,232**	**175,400**
Ernakulam	Kanayannur	Coconut	66,732	66,732	..
		Agricultural products	2,500	2,500	—
		Petrol & Oil (imported)	175,400	..	175,400
			1,313,378	**230,671**	**1,082,707**
Cochin	Cochin	Import Goods	1,269,718	195,071	1,074,647
		Coconuts	43,660	35,600	8,060

DIX VIII

Waterways, Road and Rail from each of the Ernakulam District

Transport water ways South Bound	North Bound	Total	Trans-ported by road	Trans-ported by rail	Total Columns 9 to 11
7	8	9	10	11	12
241,390	10,250	251,640	95,725	41,201	388,466
50,790	8,500	59,290	95,620	20,490	175,400
422,020	159,200	581,220	138,323	363,164	1,082,707

APPENDIX IX

List of Fairs and Melas

	Name of the Fair or Mela	Village/Town in which it is held	Day on which it is held	Commodities sold
	1	2	3	4
1	Arat at Ernakulam Temple	Ernakulam	In January every year	Toys etc.
2	Edappilli Perunnal	Edappilli North	In May every year	Toys etc.
3	Vallarpadam Perunnal	Mulavukad	In April every year	Toys etc.
4	Athachamayam	Nadama	10 days before Onam in Chingam	Vegetables, Toys, etc.
5	Pathamudayam	Thekkumbhagom	10th day of Medom every year	Agricultural implements and seeds
6	Vettikal Njayarazhcha	Mulanthuruthi	1st Sunday of Kumbhom every year	"
7	Kanjiramittam Kodikuthu	Amballur	1st day of Makaram every year	"
8	Cattle Market, Kureekad	Kureekad	30th of every month	Cattle
9	Mela in Manjapra Church	Manjapra	January 25th November 28th	Copper, Aluminium and all commodities
10	Mela in Kanjur Church	Vadakkumbaghom	June 21st to 28th	Only small scale marketing
11	Mela in Kothakulangara temple	Kothakulangara south	January 15th	Shelf and small commodities
12	Mela in Nagathode temple	Kothankulangara south	March 28th	Shelf and small commodities
13	Mela in Kedengur	"	April 15th	"
14	Mela in Palakad	"	March 28th	"
15	Church celebrations	"	April 21st	"
16	Thuravoor	"	April 21st	"
17	Sivarathri	Alwaye	March 15th to April 14th	All commodities.
18	Azhakiyakavu Thalapoli	Palluruthi	Makaram 21st & 22nd	Wooden tools & vessels, stationery articles
19	Sree Bhuvaneswara Kshethram Utsavam	"	Bharani day of Kumbhom	"
20	Uthram Arattu	Kumbalangi	Uthram day in Meenam	"

APPENDIX IX

List of Fairs and Melas—*Concld.*

	Name of the Fair or Mela	Village/Town in which it is held	Day on which it is held	Commodities sold
	1	2	3	4
21	Amman Kovil Amaravathi Amma Kali & Thalappoli	Fort-Cochin	Sivarathri day in Kumbhom	Wooden tools & vessels, stationery articles
22	Janardhana Devaswam Utsavam	"	Medam	"
23	Sree Karthikeya Kshetra Utsavam	"	Karthika day of Vrishikam	"
24	St. Mary's Church Palluruthi Perunnal	Pallippuram	5th August	Furniture vessels & other house holds, good fishing net and other equipments used for books
25	Pooyam of Cherai Goureeswaram Kshethram	Pallippuram	Pooyam day of Makaram	Stationery goods
26	Utsavam of Puthenkulangara Kshethram	Kuzhuppilli	Bharani in Kumbhom	"
27	Perunnal of St. Ambrose	Edavanakad	20th day of Vrischigam	Furniture, vessels & other household goods
28	Utsavam in Nayarambalam Temple	Nayarambalam	20th of Makaram	Stationery goods
29	Utsavam of Sree Dharmadheswaram Ambalam	Njarakkal	Pooyam in Makaram	"
30	Perunnal of St. Mary's Church Njarakkal	"	23rd Chingam 10th Makaram 8th Medam	Furniture and other household goods.
31	Mattachanda	Chennamangalam	Last date of Meenam i.e. 30th	All kinds of articles for the daily use of the people

APPENDIX X

Metric Units of Weights and Measures and Conversion Tables

I WEIGHTS

Table

10 milligrams (mg)	1 centigram
10 centigrams	1 decigram
10 decigrams	1 gram (1 g = 1000 mg)
10 grams	1 decagram
10 decagrams	1 hectogram
10 hectograms	1 kilogram (1 kg = 1000 g)
10 kilograms	1 myriogram
10 myriograms	1 quintal
10 quintals	1 metric tonne (1 tonne = 1000 kg)

Conversion Table

From old units to new units

1 grain	0.000064799 kg. 0.064799 gram (g) 64.799 milligrams (mg)
1 manchadi	250 mg (approx.)
1 panamida	0.380384 g.
1 kazhanchu	5.705760 grams.
1 sovereign	7.988062 g.
1 tola	11.6638 g. 0.0116638 kg.
1 ounce	28.3495 g.
(i.e. 16 oz = 1 lb.)	0.0283495 kg.
1 palam	34.9914 g.
1 chatak (5 tolas)	58 g. (to the nearest g.)
1 pao	233 g. (approx.)
1 thookku	1.74957 kg.
1 pound (38.89 tolas)	453.5924 g. 0.4535924 kg.
1 rathal	489.8796 g.
1 seer (80 tolas)	933.10 g. 0.93310 kg.
1 thulam (16 lb.)	7 kg. & 300 g (to the nearest 100 g.)
1 maund (40 seers)	37.3242 kilogram (kg.) 0.0373242 metric tonne
1 hundred-weight	50.802 kg.
1 ton	1.01605 metric tonne 1016.05 kg. (1 carat = 200 mg.)

From metric units to the old Units

1 mg.	0.0154324 grain (0.005 *carat*)
1 g.	15.4323 grains 4 manchadi (approx.) 0.085735 tola 0.0352740 ounce
1 kg.	1.07169 seers 2.20462 lb.
1 quintal	220.5 lbs. 1.9684 hundred-weight 2.6792269 maunds
1 *metric tonne*	19.68 *cwt.* 26.7923 maunds 0.98420 ton

APPENDIX X

Metric Units of Weights and Measures and Conversion Tables—Contd.

II LENGTH

Table

10 millimetres (mm)	1 centimetre (cm)
10 centimetres	1 decimetre
10 decimetres	1 metre (1 m.=100 cms 1000 mm)
10 metres	1 decametre
10 decametres	1 hectometre
10 hectometres	1 kilometre (1 km.=1000 m.)

Conversion Table

From old units to the new units

1 inch	2.54 cms. 25.4 mms. 0.0254 m.
1 foot	30.48 cms. 0.3048 m.
1 yard	91.44 cms. 0.9144 m.
1 furlong	201.168 m.
1 mile	1.609344 km. 1609.344 m.
1 chain	20.1168 m.

From new units to the old:

1 mm.	0.0394 inch
1 cm.	0.393701 inch
1 decimetre	3.937 inch
1 m.	1.09361 yds. 3.28084 feet 39.3701 inches 0.0497097 chain 0.00497097 furlong
1 hectometre	0.0621 mile
1 kilometre (km)	0.62137 mile

III CAPACITY

Table

10 millilitres (ml.)	1 centilitre
10 centilitres	1 decilitre
10 decilitres	1 litre (1 l=1000 ml.)
10 litres (l)	1 dekalitre
10 decalitres	1 hectolitre
10 hectolitres	1 kilolitre

Conversion Table

From old units to new units

1 ounce	28 ml. (to the nearest ml.)
1 gill	142 ml. (do.)
1 pint	568 ml. (do.) 0.568241
1 quart	1 litre and 136 ml. (do.) 1.13649 l
1 gallon	4.545961
1 liquid seer	940 ml. (to the nearest 10 ml.)

APPENDIX X

Metric Units of Weights and Measures and Conversion Tables—*Contd.*

From new units to the old.

1 litre	1.75980 pints 0.87990 quart 0.219975 gallon 1.1 liquid seer (approx.) 35 liquid ounces (do.) 1000.028 cubic centimetres 86 tolas of pure water 61.023 cubic inches 1.000028 cubic decimetres
1 kilolitre	1.000028 cubic metres

Conversion of Local Units

	Travancore	*Cochin*	*Malabar*
Struck Para (10 Ed.)	13 1.110 ml.	11 1.250 ml.	11 1.900 ml.
Heaped Para	..	..	13 1.110 ml.
Struck Edangazhi	11.310 ml.	11.125 ml.	11.190 ml.
(Nazhee)	330 ml.	280 ml.	330 ml(2 Uri)
Calicut Seer (Heaped)	11 (approx)		
Cannanore Seer	21 (approx)		

IV VOLUME

Table

1000 cubic millimetres	1 cubic centimetre
1000 cubic centimetres	1 cubic decimetre
1000 cubic decimetres	1 cubic metre

Conversion Table

From old units to the new

1 cubic inch	16.3871 cubic centimetres
1 cubic foot	28.3168 cubic decimetres 28.316 litres
1 cubic yard	0.76455 cubic metre
1 gallon	0.00454609 cubic metre 4.54596 litre 4.54609 cubic decimetre
1 ounce	28.4142 cubic centimetres
1 gill	142.066 cubic centimetres
1 Pint	568.24 Cubic centimetres 0.56825 litre
1 quart	1.1365 litres
1 litre	1000.028 cubic centimetres 1.000028 cubic decimetre

From new units to the old

1 cubic centimetre	0.061024 cubic inch 0.0070390 gill 0.0351949 ounce
1 cubic decimetre	0.0353147 cubic foot 0.219969 gallon 0.99997 litre

APPENDIX—X

Metric Units of Weights and Measures and Conversion Tables—*Concld.*

AREA

Table

1 cubic metre	35.315 cubic foot 1.30795 cubic yard 219.969 gallon 0.99997 kilolitre
100 sq. mm.	1 sq. cm.
100 sq. cm.	1 sq. decimetre
100 sq. decimetre	1 sq. metre (1 sq. m. 10000 sq. cm.)
100 sq. metres	1 are or i sq. dekametre
100 ares	1 hectare or 1 sq. hectometre (1 hectare (ha) 10000 sq. m.)
100 hectares	1 square kilometre

Conversion Table

From old units to the new

1 square inch	6.4516 sq. cm. 0.00064516 sq. m.
1 square foot	929.03 sq. cm. 0.092903 sq. m. 9.2903 sq. decimetres
1 square yard	0.83613 sq. metre 0.0083613 are
1 cent	40.4686 sq. metres
1 square chain	404.686 sq. metres
1 acre (4840 sq. yds, or 10 sq. chains)	0.404686 hectare 40.4686 acres
1 sq. mile (640 acres)	258.999 hectares 2.58999 sq. kilometres

From the new units to the old

1 square cm.	0.155000 sq. inch
1 square metre	1550.00 sq. inch 10.7639 sq. foot 1 19599 sq. yard
1 are	119.599 sq. yard 0.0247105 acres
1 hectare	2 acres & 2280 sq. yards 2.47105 acres
1 sq. kilometre	0.386101 sq. mile.

CHAPTER VII

COMMUNICATIONS

Old Time Trade Routes and Highways

Roads fit for wheeled traffic are of relatively recent origin in the District. Before their advent inland traffic was carried on almost exclusively by means of backwaters and rivers. In fact, water transport afforded an easy and cheap means of conveying goods from the interior to the Port of Cochin. The water communications were considerably improved in the Cochin area during the administrations of Dewans Sankara Warrier (1840-1856) and Sankunni Menon (1860-1879). The construction of a canal from Thevara to Kundannur by the former brought Thrippunithura within easy distance of Ernakulam. In Sankunni Menon's time a steam dredger was kept at work in the backwaters to maintain the waterways in good condition.

It was only by the middle of the 19th century that roads suitable for wheeled traffic made their appearance. Dewan Sankara Warrier was the pioneer of road-making in erstwhile Cochin State. Most of the existing main roads in the Cochin area of the District were constructed during his Dewanship, though the metalling of these roads was done by his son, Dewan Sankunni Menon. Many more roads were opened under successive Dewans of Cochin and the communication system was further improved. In the Travancore area also there was considerable progress in road building. The main road from Kottayam to the frontier of Cochin State was taken up in 1876-77 in its entire length and completed the next year. This completed the main line of communication from Trivandrum to the northern frontier of Travancore in the present Ernakulam District. The road is now known as the Main Central Road (M. C. Road).

In 1914 a Road Committee was appointed by the Cochin Government to submit a report laying down a definite programme of road construction. This led to a steady improvement in the system of roads. Such roads in the District as the road from Chottanikkara to Peppathipara, the road from Cochin to Edacochin and the road from Njarakkal to Ayyampilli came into existence during this period. The new Cochin-Edacochin road brought Cochin and Alleppey much closer to each other, the journey hardly occupying more than an hour. The opening of this road was an event of great importance as it gave a stimulus to trade and inter-state communications. Another important road that was constructed in the District in the early thirties was the Vaipin-Pallippuram road. The administration of Dewan Sir R. K. Shanmughom Chetti gave a further fillip to road building in the District, particularly in Ernakulam town. The Shanmughom Road was one of his notable achievements. With the dawn of Independence more roads began to be built. The Mahatma Gandhi Road (Seventy Feet Road) in Ernakulam town may be specially mentioned in this connection.

Present System of Roads

The District is at present served by a large net-work of roads. In 1963 the total mileage of all kinds of roads was 1,049 miles and 1 furlong. Out of this 84 miles were maintained by the various Municipalities and the rest by the Public Works Department. The roads are of three types, viz., (1) Bituminous or tarred, (2) Water-bound Macadam and (3) Lower Type. The total mileage under each category is given below.

Type		Miles	Furlongs
Total		**1,049**	**1**
Bituminous or tarred	..	249	7.440
Water-bound Macadam	..	346	5.220
Lower Type	..	452	4

In addition to the National Highway 47 which runs partly through this District, there are 12 Provincial Highways, 133 District Roads, 108 Village Roads and 22 Town Roads. The total mileage of National Highway, Provincial Highways, District Roads, Village Roads and Town Roads is given below.

		Miles	Furlongs
Total	..	1,049	1
National Highway	..	28	2
Provincial Highway	..	140	6
District Roads	..	552	4
Village Roads	..	228	..
Town Roads	..	15	5
Municipal Roads	..	84	0

The classified list of Provincial Highways, District Roads, Village Roads, Town Roads and Municipal Roads is given in Appendix I at the end of this Chapter with details of their mileage.

Brief descriptions of some of the important roads are given below.

Arur-Karukutti Road

This road is a portion of the National Highway 47 having a length of 28 miles and 2 furlongs. It begins at 3/3 of the Cochin-Arur Road and ends at Karukutti, overlapping the M. C. Road for a length of 3 miles and 4 furlongs. In its course the road passes through Willingdon Island, Ernakulam, Edappilli, Kalamasserri, Alwaye, Ankamali etc. The portion within the area of Willingdon Island is under the Cochin Port Trust. This road overlaps the entire length of the Mahatma Gandhi Road (Seventy Feet Road). In this route there are seven major bridges—viz., Aroor bridge, Mattancherri bridge, Venduruthi bridge, Parambayam bridge, Marthanda Varma bridge, Mangalappuzha bridge and Mangalathazham bridge. The Mattancherri bridge and Venduruthi bridge connect the Willingdon Island with Cochin and Ernakulam respectively. The following roads either take off from or cross this road.

1 Mattancherri Road
2 Cochin Harbour Road
3 Palarivattam-Thrippunithura Road
4 Road to Ogale Glass Factory
5 F. A. C. T. Road
6 Ankamali-Parur Road

The Premier Tyres factory located at mileage 4/5 of erstwhile Alwaye-Edappilli road is completely overlapped by this. The roads to the F.A.C.T. and Ogale Glass factory take off from this at chainages 4/1 and 4/3 respectively.

Main Central Road

This road starts from mileage 117/2 of M. C. Road at Moovattupuzha Taluk boundary and ends at mileage 153/7 of the old Travancore boundary. It passes through Kuthattukulam, Moovattupuzha, Perumbavur, Kaladi etc., and joins the National Highway 47 at Ankamali and the remaining length overlaps with the National Highway. In its course, it crosses the Periyar Valley Irrigation Project canals at mileages 137/2 and 146/3. The following roads either take off from or cross this road.

1	Thalayolaparambu-Kuthattukulam Road	117/7
2	Moovattupuzha-Piravam Road	127/7
3	Moovattupuzha-Kothamangalam	129/7
4	Moovattupuzha-Thodupuzha	129/1
5	W. F. Road	130/1
6	Road to 5th mile W. F. Road	135/3
7	Keezhillam-Kurichilakode Road	136/1
8	Alwaye-Munnar-Chinnar Road	141/4
9	Road to Travancore Rayons	142 & 143/1
10	Malayattur Road and Chowara Road	146/2
11	Vengoor-Kidangoor Road	148/8
12	Karukutti-Eloor Road	152/2

From chainages 150/3 to 153/7 this road overlaps the National Highway 47. In its course the road covers the Moovattupuzha bridge, Sri Sankara bridge at Thannipuzha (Kaladi), Vengoor bridge and Mangalathazham bridge at chainages 129/7, 146/1, 149/1 and 151/4 respectively.

Perumbavur-Alwaye Road

The road starts from 10/6 of the Alwaye-Chinnar road and is having a length of 10 miles. The following roads either start from or cross this road.

1	Road to Chemparakkal	4/4
2	Road to Periyar Pottery works	5/5
3	Road to Erumathala	8/3
4	Chembakasserikadavu Road	8/7

At the 10th mile the road ends by meeting the Alwaye-Ernakulam road. The First Class Rest House and T. B.are located at mileages 9/3 and 9/6 respectively of this.

Vaipin-Pallippuram Road

This is a straight road in the middle of the Vaipin Island covering the entire length of the island to a length

of 15 miles and 5 furlongs. The road begins from Vaipin ferry landing which leads to Fort Cochin and ends at Munambam ferry leading to Cranganore. The road falls throughout the length of the Vaipin Island. In its course, it crosses a number of *thodus* having culverts or minor bridges. The Cherai-Parur Road leading to Alwaye takes off from the road at mileage 11/7. In its course, the road touches the following centres.

1	Elangunnapuzha	4/1
2	Njarakkal	5/4
3	Nayarambalam	6/6
4	Cherai	11/6
5	Pallippuram	13/5

Alwaye-Parur Road

The first 4 furlongs of the road overlap the Alwaye-Ankamali road. The road has a total length of 10 miles. The main course of the road is westward from Alwaye. The following roads either take off from or cross this road.

1	U. C. College to Thirumuppam Road	1/8
2	Kodungallur-Karumallur Road	5/3
3	Mannam-Peruvaram Road	7/7
4	Chennamangalam Road	8/8
5	Parur-Varapuzha Road	9/6

The road ends at Thattukadavu ferry at mileage 9/8. The road branches into two at 9/5, one leading to Kuriappilli and the other to Varapuzha and Cherai. The road to Cherai meets at 11/7 of Vaipin-Pallippuram road by crossing the Cherai bridge and covering a length of 1 mile and 7 furlongs from Parur. The branch road leading to Kuriappilli has a length of 4 miles and 2 furlongs. The road ends at Moothakunnam boat jetty which leads to Cranganore.

Ernakulam-Ettumanoor Road

The road starts from Ernakulam Municipal boundary. The first portion of 6 miles is known as Hill Palace Road. This portion ends at Thrippunithura. From Thrippunithura it leads to Ettumanoor. Only 13 miles and 5 furlongs of this road fall under the Ernakulam P. W. D. Division. The following roads either take off from or cross this road.

1	Palarivattam Road	4/6	of Hill Palace road
2	Panakutti Road	3/1	
3	Eroor-Puthenkulangara road	2/1	
4	Vaikom Road	1/4	
5	Irimpanam Road	0/5	

In its course there are 4 bridges as follows:—

1	Thadippalam bridge	6/2	of Hill Palace Road
2	Chambakkara bridge	3/6	
3	Panamkutti bridge	2/8	
4	Karingachira bridge	0/8	

The road leads to Kottayam via. Vaikom and Ettumanoor.

VEHICLES AND CONVEYANCES

A few decades ago boats were used extensively for purposes of travel and transport of goods in this District. The *Cochin State Manual* gives the following interesting information about the boats which were in common use in the early part of this century. "Several descriptions of boats are in use in the State. Well-to-do passengers travel in cabin boats, which are ordinarily from four to five feet broad and 25 to 40 feet long; a third of the length is taken up by the cabin in which the passengers are accommodated, and the rest is occupied by the oarsmen, 10 to 18 in number. There are smaller boats of a similar description propelled by four to eight oars, but their cabins are generally made of split bamboos covered with bamboo mats. Ordinary passengers use *Vallams*, or boats the whole length of which is furnished with a convex bamboo roof covered with cadjan thatch. They contain sleeping accommodation for six to ten persons, and are propelled by punting. Cargo boats, or *kettu vallams*, are of the same description, but are of much larger dimensions, some of them being sixty feet long, seven feet broad and eight feet deep. Snake boats are used only on State occasions as escort boats; they are long and narrow. and are propelled by paddles, 20 to 60 in number, but have no room for passengers. Fishing boats are small dug-outs in which one or two persons paddle about in their piscatorial occupation. These are the types of the many varieties of boats that ply in the backwaters of Cochin. In recent years steam launches have come into fashion."[1] Country crafts and motor boats are still plying in the waters of the District. The following is a statement of the number of crafts licensed to ply on the waters during 1957-58.

1 *Cochin State Manual*, C. Achutha Menon, pp. 278-79

	Licensing Station	Country crafts No.	Motor Boats No.	Rafts No.
	Total	**3,568**	**218**	**806**
1	Parur	1,797	6	175
2	Ernakulam	901	169	564
3	Mattancherri	870	43	67

Motor traffic in this District is considerably heavy. According to the Administration Report of the Motor Vehicles Department for 1961-62 Ernakulam has the largest number of motor vehicles among the Districts of Kerala. The following statement shows the number of vehicles as on 31st March 1962.

	Total	**5890**
1	Goods vehicles	1,195
2	Stage carriages	482
3	Taxi cabs	493
4	Cars	3,014
5	Motor cycles	637
6	Auto Rickshaws	16
7	Tractor Trailers	53

The table given below gives the number of non-motor vehicles and conveyances of various kinds plying in the District in 1961-62.

	Total	..	..	**29,417**
1	Bicycles	..	..	23,977
2	Hand carts	..	..	3,078
3	Rickshaws	..	..	900
4	Bullock carts	.	..	1,431
5	Other Types: (4 wheeled push carts)	..	..	31

The Origin Destination Survey conducted by the Department of Statistics in Alwaye and Ernakulam towns in 1955-56 revealed that 78 and 80 per cent respectively of the trips undertaken by the people in these towns were on foot. The following table gives fuller details of the number of trips expressed as a percentage of the total.

Mode of travel	Alwaye	Ernakulam
On foot	78	80
Bus	7	4
Cycle	1	6
Owned car	11	4
Rickshaw	..	2
Boat	..	3
Train	3	1

It may be stated in this connection that Alwaye had the largest percentage of trips in owned cars among the towns in the State covered by the survey. The following is an analysis of trips using conveyances.

Conveyance	Alwaye	Ernakulam
Bus	31	21
Cycle	3	29
Owned car	50	19
Taxi	2	1
Rickshaw	..	10
Boat	1	17
Train	13	3

PUBLIC TRANSPORT

State Transport Service

The activities of the State Transport Department in this District commenced with the introduction of the Lorry Service in favour of Kannan Devan Hill Produce Co., Ltd., between Alwaye and Munnar with effect from the 15th Edavom 1114 (29th May 1939). Subsequently in 1119 (1944) passenger services between Alwaye and Kottayam and Alwaye and Parur were introduced. A further step in the extension of the State Transport services was taken when the Kottayam-Parur and Kottayam-Ernakulam routes were nationalised on the 10th Chingom 1125 (26th August, 1949). Regular passenger services between Alwaye-Trichur and Alwaye-Ernakulam were introduced with effect from 1st May 1961.

The Ernakulam District comprises of two Transport Districts, viz., Alwaye and Ernakulam. The activities of each District,both operational and mechanical, are controlled by the District Transport Officer. There are Bus Stations at Alwaye, Moovattupuzha, North Parur and Perumbavur and waiting sheds at Kottapuram and Chennamangalam. The State Transport Department has also a garage at Alwaye.

The allocation of schedules as on 1st October 1962 was as follows:—

	Ernakulam	Alwaye
Total	63	49
Express	1	..
Ordinary & Fast Passenger	56	34
Lorry	6	15

The basic rates of fares in force are as follows:—

Ordinary Services	3 paise per kilometre with a minimum charge of 10 paise
Fast passenger services	3 paise per kilometre with a minimum charge of 40 paise
Express & Deluxe services	4.5 paise per kilometre with a minimum charge of Re. 1 for Deluxe and 50 pais for Express services

A list of routes operated by the Kerala State Transport Department in the Ernakulam and Alwaye Transport Districts as on 31st August 1962 is given in the following table.

Routes operated by the State Transport Department as on 31st August 1962

	Route		Route Distance (In Miles)
	ERNAKULAM DISTRICT		
1	Ernakulam-Devikulam		92.5
2	„	Trichur	52
3	„	Trivandrum via Alleppey	135.8
4	„	Trivandrum via Kottayam	156.0
5	„	Quilon	92
6	„	Mavelikara	68
7	„	Cannanore	195.5
8	„	Thrippunithura	8
9	„	Alleppey via Fort Cochin	49
10	„	Alleppey direct	39
11	„	Moovattupuzha	28
12	„	Shertallai	25
13	„	Eloor	16
14	„	Nirmala College	30
15	„	Thiruvamkulam	10
16	„	Moovattupuzha-Mekadambu	3
17	Ernakulam-Chalakudi		34
18	„	Puthen Cruz	14
19	„	Alwaye	18
20	„	Thuravoor	19
21	„	I. A. C.	13.5
	ALWAYE DISTRICT		
1	Alwaye-Trivandrum		150
2	„	Moovattupuzha	22
3	„	Parur	11
4	„	Chennamangalam	11
5	„	Circular	9
6	Chennamangalam-Ernakulam		29

Routes operated by the State Transport Department as on 31st August 1962—(Concld.)

	Route	Route Distance (In Miles)
	ALWAYE DISTRICT—(Concld.)	
7	Alwaye- Eloor	9
8	„ Trichur	34
9	„ I. A. C.	5
10	„ Mahilalayam	2
11	„ Thattampady	6
12	„ Chowara	3
13	„ Kottayam	57
14	„ Perumbavur	10
15	„ U. C. C.	3
16	„ Ernakulam	18
17	„ Cherai	13
18	Parur-Ernakulam	29
19	Alwaye-Angamali	8
20	„ Vadakumpuram	13
21	„ Nirmala College	24
22	Mahilalayam-U. C. C.	5
23	Alwaye-T. C. C.	9

Private Transport

Private Transport services occupy a key place in the transport system of the District. The total number of labourers employed in the private motor transport industry as on 31st March 1962 came to 3,309. There were regular transport services run by private operators on 125 routes. The P. S. N. Motors with a fleet of 22 buses were the most important of the private operators. The following is an analysis of permit holders for passenger bus service operations in Ernakulam District as on 31st March 1962 according to the size of the fleet.

1	No. of permit holders having one bus	29
2	„ two buses	12
3	„ three buses	11
4	„ four buses	7
5	„ above five and below ten	8
6	„ above ten and below fifteen	2
7	„ above fifteen and below twenty	2
8	„ above twenty and below thirty	1

Ernakulam town which, unlike Trivandrum, has no City Service run by the State Transport Department, is served by private transport services. The total number of town buses in July 1963 came to 61. There were also 145 taxi cabs in the town during the same period.

There is a Regional Transport Officer at Ernakulam to administer the Central Motor Vehicles Act and the Travancore-Cochin Motor Vehicles Taxation Act and

the Rules framed thereunder. He has under him a field staff of one Motor Vehicles Inspector and 4 Assistant Motor Vehicles Inspectors. In 1961-62 a sum of Rs. 41,01,635.14 was realised as tax by the Motor Vehicles Department from this District.

RAILWAYS

The District is served both by Broad Gauge and Metre Gauge Railway lines. The Broad Gauge portion forms part of the Cochin-Shoranur line of the Southern Railway while the Metre Gauge section forms part of the Ernakulam-Quilon line. The former starts from Cochin Harbour Terminus and leaves the Disrtict near Karukutti while the latter starts from Ernakulam and leaves the District near Piravam Road.

The earliest railway line to be introduced in the Distric is the Shoranur-Ernakulam line. It was opened for good traffic on the 2nd June 1902 and for passenger traffic on 16th July 1902. Originally a Metre Gauge line, it was converted into Broad Gauge about the year 1935. Furthers it was extended from Ernakualm to Cochin Harbour on 1st July 1940 with the opening of the Bridge Head to Pier. The Broad Gauge length in this District is approximately 25¼ miles. The Kottayam-Ernakulam line which now facilitates through communication between Ernakulam and Trivandrum, via. Quilon was formally opened on the 17th October 1956.

There are 11 stations on the Broad Gauge line from Cochin Harbour to Karukutti and 5 stations on the Metre Gauge line from Ernakulam to Piravam Road. A statement showing the names of railway stations with such details as the distance between stations, number of passengers booked and tonnage of goods (inward and outward) transported is given at Appendix II. The railway line from Karukutti to Ankamali passes through laterite gravelley soil, mostly in cuttings and that from Ankamali to Alwaye through clayey soil in embankments, cutting streams and rivers at intervals. From Alwaye to Edappilli it passes through laterite gravelley soil mostly in cuttings and partly in low embankments across paddy field roads, and from Ernakulam to Mattancherri through sandy soil in marshy area and in the proximity of backwaters with

low embankments. From Mattancherri to Cochin Harbour the tract passes through an island made up of soil.

The most important stations in this District are Cochin Harbour Terminus, Ernakulam and Alwaye. Cochin Harbour is the terminus station for the trains from Shoranur. It has been constructed by the Port authorities with all modern amenities. The station has facilities for reservation, a Refreshment Room and a Police Station, though no retiring rooms have been provided. Ernakulam is an important junction which connects the Metre Gauge railway point from Quilon to Ernakulam and it has been provided with all modern amenities with separate waiting rooms for gentlemen and ladies. There are also facilities for reservation at this station. The Alwaye station was reconstructed in recent years with all modern amenities. There are separate waiting rooms for gentlemen and ladies here. While the Ernakulam station provides for catering establishments, Alwaye has only a light refreshment stall. All the other railway stations in this District are unimportant ones. They do not provide any modern amenities to the travelling public. Nor are there any arrangements for catering or reservation.

The railway plays a very important part in the socio-economic life of the District. The local agricultural products like coconuts, arecanuts, pepper etc.. forest products like timber, tiles, chemical fertilisers, D.D.T., petroleum products, edible oil etc., which are in great demand all over the country are transported by railway to various parts of India from this District. The area is highly deficit in foodgrains. In view of the limited cultivable area available and the high density of population, the foodgrains have to come from distant places like North India and Andhra Pradesh and it is by railway that these are moved into the District. There are also several important fairs and festivals in this District, as for example, the *Sivarathri* at Alwaye and the *Perunnal* at Malayattur Church, and the devotees who visit these pilgrim centres in their thousands are transported by railway. It may also be mentioned in this connection that competition between railway and road is most intense in the Ernakulam District which has a net-work of roads running closely parallel to the railway line. Considerable freight is lifted by lorries to points reached by rail, especially from Cochin Harbour Terminus. Recent trends indicate that high rated freight prefer to move by road, leaving low rated one for the railway.

WATERWAYS

Prior to the development of roads and railways, water transport was the main means of communication in the District. This system was improved in the past by the construction of artificial canals interlinking the lagoons, waterways and mouths of the rivers. In erstwhile Cochin State, between 1840 and 1850, the Aranattukara canal was constructed and the Edathuruthi canal was deepened and boat traffic was thus rendered possible for the first time between Ernakulam and Trichur throughout the year. The construction of the Thevara-Kundannur canal, which has already been referred to, reduced the distance between Ernakulam and Thrippunithura by more than half.

Waterways continue to play an important part in the communication system of the District. The West Coast Canal system (347 miles) which starts from Hosdurg in the north and ends at Trivandrum in the south flows through this District. Two sections of this system, viz,. Ala-Cochin (22 miles) and Cochin-Alleppey (44 miles) lie partly in this District. The Ala-Cochin section lies in parts in the Cranganore and Cochin Taluks on the western side and Mukundapuram, Parur and Kanayannur Taluks on the eastern side. It consists of wide backwaters, sufficiently deep for navigation throughout the year, passing through Kottapuram, Azhikode, Munambam, Cherai and Njarakkal on the western side and Karupadanna, Pullut and Parur on the eastern side. It is in this area that the Periyar river branches into two at Alwaye. The principal arm flowing north-west joins the Chalakudi river and expands into a vast sheet of water touching Munambam. The other arm flows south and it is on this arm, the industrial area of Alwaye has been built up. This is known as Eloor. The Periyar is navigable in the monsoon up to Malayattur and in the summer, up to Alwaye Market Landing.

The Cochin-Alleppey section consists of the Vembanad Lake 204.61 sq. km. (79 sq. miles) in area and extends from Cochin to Alleppey. It lies along the Cochin, Shertallai and Ambalapuzha Taluks on the western side and the Taluks of Kanayannur, Vaikom and Kottayam on the eastern side. Its length is 83.69 km. (52 miles) and width 14.48 km. (9 miles) in some places, the average width being

3.22 km. (2 miles) and is connected to the sea at Cochin. It is very deep in some places and rather shallow at other places, the deepest and narrowest portions being at Mackai about 24.14 km. (15 miles) from Cochin. It also serves the Taluks of Moovattupuzha, Meenachil and Changanacherri. The Moovattupuzha and Meenachil rivers which lie in this section drain into this lake. Three other rivers viz., Manimala, Pamba and Achencoil which lie in the continuous section, viz., Alleppey-Quilon, also drain into this lake.

The important landing places in this District are Alwaye, Ernakulam and Cochin. The average traffic carried by the waterways at each of these landing places is shown below:—

Landing place	Traffic carried		
	South Bound Tons	North Bound Tons	Total Tons
Alwaye	241,390	10,250	251,640
Ernakulam ..	50,790	8,500	59,290
Cochin ..	422,020	159,200	581,220

A detailed statement of landing places, their location and the transport facilities to places served by them is given in the table at Appendix III.

Mention may also be made in this connection of the system of inland canals. The inland and cross canals in this District are too numerous to be enumerated. Some of them are the following:—

1 Ayyampilli thodu
2 Banerji Canal
3 Edavankad thodu
4 Eda-Cochin thodu between Eda-Cochin & Palluruthi
5 Elangunnapuzha thodu
6 Gothuruthu to Chennamangalam and Pazhampillithuruthu
7 Malipuram thodu
8 Manjalil canal to Parur
9 Manjanakad to Edavankad viz., Njarakkal and Nayarambalam
10 Njarakkal Canal, Malippuram Canal and their branches
11 Narayanambalam thodu
12 Padiyathu thodu
13 Pallippuram canal
14 Parur canal and branches
15 Parur court to Manjali canal

16 Pashani thodu
17 Puthen thodu from Kandakadavu to Chellanam
18 Puthotta-Kanjiramittam canal
19 Thevarathodu and Kumbalam canal and all canals and minor backwaters on the south that lead from and open into the main backwaters on Ernakulam side through the same
20 Vaduthala canal and all canals and minor backwaters from the south that lead from or open into the main backwaters through the same

The two important canals are Njarakkal canal and the Poothotta-Kandanad canals. The former which is 3 miles long is also called Bunder canal. It starts from Cranganore lake at Manjanakkad and ends near the sea bar near Njarakkal where there is a fish curing yard. The Puthotta-Kandanad canal which is 9 miles in length takes off from Moovattupuzha and connects Vembanad lake with Kanjiramittam and Kandanad. It also gives connection to Alleppey and Cochin.

Passenger boat services are operated by private agencies on as many as 13 routes in this District. The particulars of the services are given in the table at Appendix IV.

The State Transport Department has a Water Transport Section functioning in Ernakulam. When Travancore and Cochin States were integrated on 1st July 1949, the ferry transport services between Ernakulam and Cochin and the Workshop at Thevara were taken over by the Department. At the beginning the Department operated 5 boats between Ernakulam and Mattancherri and between Terminus and Mattancherri. The Department operates a fleet of 11 boats and 2 LCMs. It operates services on the following routes.

1 Ernakulam—Mattancherri via Embarkation
2 Ernakulam—Mattancherri via Embarkation and Customs
3 Mattancherri—Terminus
4 Murukkumpadam—Terminus
5 Ernakulam (High Court Jetty)—Murukkumpadam via Vallarpadam
6 Ernakulam (High Court Jetty)—Bolghatti

A study of the income and expenditure of the Water Transport Section for a period of five years from 1957-58 to 1961-62 shows that it has been operating the ferry services at a loss. The following statement shows the financial results for each year.

Year	Revenue Rs.	Expenditure Rs.	Net loss Rs.
1957-58	5,17,729	5,40,878	23,149
1958-59	5,55,903	5,56,140	237
1959-60	5,84,470	6,16,781	32,311
1960-61	5,80,007	7,50,036	1,70,029
1961-62	5,35,542	7,29,698	1,94,155

Ferries

As this District abounds in backwaters, lagoons and inland canals, there are a large number of ferries scattered all over. The list furnished by the Public Works Department shows that there are on the whole 136 ferries in this District. Some of them are full-time ferries and others monsoon ferries.

BRIDGES

The Ernakulam District is noted for some of the major bridges in this State, old as well as new. Among the old ones may be mentioned the Moovattupuzha and Neriamangalam bridges. The former located across Moovattupuzha river at Main Central Road 129/7, was constructed in 1914. It is one of the oldest concrete bridges in this State and is still in a sound condition. The Moovattupuzha bridge was constructed at a time when reinforced concrete construction was not well understood in India. It has 3 R. C. C. arches, two spans of 108′ and one of 100′ over rubble masonry abutments and piers. The bridge has 15 feet clear road width and only single lane traffic is possible. The total expenditure on the work was Rs.2.80 lakhs.

The Neriamangalam bridge located at 34$\frac{3}{8}$ Alwaye-Munnar-Chinnar road, was built in 1935. It is practically an all-concrete structure of 5 bow string arches, each of 132 feet span by 29 feet 6 inches rise and 72 feet long end to end of parapets with a clear roadway of 16 feet. The total length is 700 feet. The cost of construction worked out to nearly Rupees 4.40 lakhs.

The construction of major bridges in this District has been given special attention in the Five Year Plans. Several major bridges, all of reinforced cement concrete, were constructed and opened to traffic during the Second and Third Plan periods. Brief accounts of the most important of these bridges are given below.

Aroor Bridge

This is an important bridge in the National Highway 47 situated at about 7 miles south of the Cochin Harbour in the Alleppey-Ernakulam road. It is across an area of the backwater between Aroor and Edacochin. Out

of the total water-way of 1,548 ft. at the bridge site, a length of 1,128 ft. is covered by 17 spans of the bridge and the rest of the length is made up by bund forming approach roads on either side of the bridge.

The bridge is designed for I. R. C. Class AA loading. The sub-structure of the bridge consists of 16 Nos. of R. C. trestle piers, each having 16 Nos. 16" sq. R. C. Piles penetrating to an average depth of 65 ft. below the bed level of the backwater and suitably capped. The bridge is given a longitude camber so as to minimise the height of abutments and embankments leading thereto while allowing navigational clearance of 14' from high water level in 3 central spans. The superstructure of each span consists of 9 Nos. identical prestressed beams of 45 inches depth and 5" to 7" thick top flange which forms the deck of the bridge. All the beams are resting on the rocker bearings on one side and roller bearings on the other side. The deck slab as well as the cross beams are also prestressed in situ. The deck of the bridge has a 24 ft. wide roadway and 4 ft. 2 1/4" wide footpaths on either side. The outer ends of the footpaths are provided with ornamental R. C. Hand rails with R. C. light posts on top of all piers and abutments.

The work was executed under the direct supervision of the Cochin Port and completed in 1960. The total cost of the bridge and the approaches came to about Rs. 23 lakhs, which was financed by the Ministry of Transport and Communications (Road Wing), New Delhi.

Mangalapuzha Bridge

The Mangalapuzha bridge, located across the right arm of the Periyar river near Alwaye town, is one of the most important bridges on the National Highway 47 connecting Salem-Cochin and Kanyakumari. It has a total length of 491 ft. with two spans of 162 ft. and one span of 166' 9" on the left end—the longest span so far adopted in Kerala for bow string girders. The superstructure is of R. C. C. bow string girder type with roadway at the springing level and is designed for I. R. C. Class AA loading. The clear width of roadway is 24 ft. About 1,100 tons of cement and 500 tons of steel were used for the work. The total cost of construction came to about Rs. 16 lakhs, the approximate cost per rft. being Rs. 3,000. The bridge was opened to traffic on 25th May 1960.

Cheranallur Bridge

The Vaduthala-Edappilli road which forms part of the proposed road from Parur to Ernakulam crosses a backwater stream at Cheranallur. The Cheranallur bridge is constructed across this crossing. The bridge has two central spans of 40 ft. and two end spans of 37 ft. The total length is 169 ft. and the width of the roadway is 22 ft. The bridge is constructed with reinforced cement concrete with TEE beam cum slab type superstructure founded on RCC friction piles. It is designed for I. R. C. Class A two lane loading. The total cost of construction came to about Rs. 2.30 lakhs which works out to about Rs. 1,415 per rft. The bridge was opened for traffic on December 18, 1960.

Choondanthuruthu Bridge

The Choondanthuruthu bridge is constructed at the 4th mile in Ankamali-Manjali road, across the Chalakkal stream. It consists of five spans, the central span being 54 ft. long. The spans on either side of the central span are 40 ft. each and the end spans are 32 ft. each. The superstructure is constructed with reinforced concrete TEE beams and slab, designed for two lanes of I.R.C. Class A loading. It consists of 3 R.C. TEE beams and deck slab 7.5″ thick. The total cost of the bridge is Rs. 2.83 lakhs which comes to about Rs. 1,415 per rft. It was opened on 20th November 1959.

Panamkutti Bridge

The Panamkutti bridge is constructed on the 5th mile of Ernakulam-Thrippunithura road replacing an existing weak bridge. The total length of the bridge is 290 ft. It consists of 6 spans of 48′ in length. The piers are founded on R.C.C. friction piles. They are constructed in R.C. as hollow columns with a shell thickness of 12″. The superstructure consists of 3 RCC beams supporting the 7½″ thick deck slab with cantilever ends on either sides. The bridge provides a clear roadway of 22 ft. width capable of carrying I.R.C. Class 'A' loading. The total cost of the bridge came to Rs. 4.6 lakhs which works out to Rs. 1,600 per rft. The bridge was opened on 29th September 1960.



SANKARACHARYA BRIDGE, KALADI

Parambayam Bridge

The Parambayam bridge in N. H. 47 is constructed across the Parambayam thodu on the Ankamali side approach road of Mangalapuzha bridge. The length of the bridge is 137'. The central span is 43' 9" long and the end spans 46' 5" each. The foundations for piers and abutments have been provided with R.C.C. friction piles. The superstructure consists of R.C. TEE beams and slab. The bridge provides a clear roadway of 24 ft. capable of carrying I.R.C. Class A A loading. The total cost of the bridge came to Rs. 3.72 lakhs. The approximate cost per rft. is Rs. 2,710. The bridge was opened for traffic on 25th September 1960.

Cherai Bridge

The Cherai bridge is constructed across Chakkarakadavu canal crossing to connect the thickly populated coastal area extending from Vaipin to Pallippuram with the main land. It is located at chainage 9,080 of the newly constructed Parur-Cherai road connecting Parur-Varapuzha road with Vaipin-Pallippuram road. The length of the bridge is 330' with 5 equal spans of 66'. The bridge is provided with 7½" thick deck slab supported by T. beams. It is designed for I.R.C. Class A loading with a clear roadway of 22 ft. The cost of the bridge came to Rs. 6.5 lakhs which works out approximately to Rs. 1,875 per rft. The bridge was opened on 29th September 1960.

Sankaracharya Bridge

This bridge has been constructed across the Periyar river in the 146th mile of the Main Central Road near the birth place of Adi Sankara and this construction has eliminated the only unbridged crossing in the road. The bridge has a total length of 1,350 ft. divided into 13 spans of 100' each and two cantilever spans of 25' each and a roadway of 22' and 5' footpaths on either side. The decking is of the balanced cantilever type and is capable of carrying I.R.C. Class A two lane loading. The piers are of 11' diameter. The bridge is a high-level one and the roadway is 30' above the bed. The construction was started in 1957. The total cost of the bridge including approaches is Rs. 20 lakhs which works out to a rate of Rs. 1,480/rft. The bridge was opened on 16th May 1963.

Kuzhikandom Bridge

Kuzhikandom bridge is located across the Kothamangalam river in the Kuzhikandom-Varapetti road. The bridge is 120′ in length which is divided into 3 spans of 40′ each. The roadway is 14′ wide and is suited for I.R.C. Class A single lane loading. Open foundations are adopted. The piers and abutments are of rubble masonry. The decking is of RCC T-beam and slab type. The construction was started in January 1962 and has cost Rs. 1.5 lakhs including the cost of approaches. The average rate is Rs. 1,130/rft. The bridge was opened on 20th May 1963.

COCHIN PORT

Cochin, one of the three Major Ports on the west coast of the Indian Union, is situated in this District. It is about 580 miles south of Bombay and 200 miles north of Cape Comorin and at Lat. 9° 58′ North and Long. 76° 14′ East. In view of its beautiful scenic background and the lagoons and backwaters surrounding it, Cochin has been rightly called the "Queen of the Arabian Sea".

History of its Development

The development of Cochin into a modern Port is a romance of work and vision. It could not, until three decades back, take its rightful place as a modern deep-sea Port because of a rock-like barrier of sand which blocked the approach to the Port from the sea. For centuries the Harbour was only a roadstead and boats and lighters took cargo to ocean-going steamers waiting outside and brought back rice, the principal import and other goods. For more than a hundred years there were proposals of developing the Port by cutting a deep channel for ships to enter and come inside. Probably no dredging proposition since the days of the Suez Canal project has aroused so much technical interest as the opening up of the Cochin Harbour. For 70 years one engineer after another discussed the project, but there was no agreed solution. At last what was first thought an illusory dream was brought within the realm of reasonable hope. There were people who persevered in the hope that an improved dredging apparatus would

render the through channel practicable. In 1920 the Madras Government, which was then in control of the Port, clinched the matter by starting the work on a small scale.

After many daring experiments and surveys the cutting of an approach channel from the deep sea across the bar to the Harbour was accomplished. The work was made possible by using a suction dredger—*Lord Willingdon*-with pipe line. The performance of this dredger had created a world record for speed, cheapness and continuity of work. In three working seasons, by 1929, the approach channel, 450 feet wide and 3¼ miles long, was cut across the bar, connecting the Harbour mouth with the deep sea. During 1930-31 the Port was thrown open for vessels upto 30 feet draft. It had become accessible for deep water traffic in the worst monsoons, providing a splendid anchorage at all times of the year.

Then began the conversion of the Harbour into a Major Port. The development was divided into four stages. The first stage consisted of all preliminary works of an investigatory nature before 1920 when Mr. R. C. Bristow (later Sir Robert Bristow), the pioneer architect of the Port, was appointed for development of the Harbour.[1] The second stage consisted mainly of foreshore protection, a part of the reclamation wall and the experimental dredging inside and outside which cost Rs. 9 lakhs. The third stage consisted of the major dredging operations inside and outside, the moorings, a few residences, a large area of reclamation, and a dry dock. On this reclamation of about 780 acres in area arose Willingdon Island, the nerve centre of Port activities. It cost about Rs. 79 lakhs. The fourth stage included all works necessary to convert Cochin into a first class modern Port, like the provision of bridges, wharf, quay berths, cranes, warehouse and transit sheds, offices, a reserve light and power plant, roads, residences, port railway, water supply and a number of small works. Its cost came to nearly Rs. 117 lakhs.

The further programme of works for the Harbour and Willingdon Island was based on an anticipated growth of the trade to 2 million tons in 1960 with an ultimate target of 4 million tons in about 30 or 40 years ahead. In 1936,

1. Attention is invited to Bristow's work *Cochin Saga* which deals with the history of the development of the Cochin Port.

the Cochin Port was declared as a Major Port and the Government of India took direct control of its administration.[1] The provision of facilities of a first class terminal Port was completed by the end of 1939. The first ship came along the new wharf on 2nd June 1939.

At first the Port started with 2 wharf berths and due to the intervention of the war, improvements had to be temporarily kept in abeyance. However, one more berth was added during the war. As part of the Post-War Development Scheme, the wharf was extended by another berth. By 1951, the Port had four wharf berths capable of accommodating four vessels of 450 ft. in length, in addition to the Boat Train Pier which was meant for passenger ships and as a coal berth, 13 stream moorings in the Mattancherri channel in the western side and three stream moorings in the Ernakulam channel in the eastern side. The stream moorings in the Ernakulam channel were mainly intended for use of oil tankers and the rest for steamers carrying general cargo.

It was at this stage of development that the National Five Year Plan works at the Port commenced. Development works costing several crores were taken up at the Port under the Five Year Plans. The major items of development work in the Cochin Port during the Plan periods are given below. A separate Coal Berth was constructed in 1952-53 in order to cope with the increasing number of colliers visiting the Port. In 1953-54 two additional Warehouses with a storage area of 63,270 sq. ft. were constructed at a cost of Rs. 7.8 lakhs. Two Oil Tanker Berths were constructed at the Ernakulam channel at a cost of Rs. 17.4 lakhs and they were put into commission in 1956. They are connected through jetties to the shore with pipes leading to the shore installations belonging to the Oil Companies. The pipe line leading to the shore installations was commissioned in 1956. The most important work undertaken during the First and Second Five Year Plan periods was, however, the provision of four additional Wharf Berths at an estimated cost of Rs. 224 lakhs on the eastern side of the Willingdon Island facing Ernakulam with a view to coping with the

1. A Port Trust has been constituted in 1964 for the administration of the Cochin Port. A brief account of the constitution and working of the Port Trust is given in Chapter XIV.

pressure of increased cargo traffic. The new Wharf is 2,200 feet long and drawing up to 30 feet with facilities such as cranes, railway tracts, transit sheds, warehouses, open cargo stocking space etc. The Wharf is served with both metre and broad guage railway lines. The work on the additional wharf berths commenced in 1955 and all the berths have since been put into commission, the fourth one having been opened in May 1964. A second Coal Berth at an estimated cost of Rs. 13.31 lakhs was constructed during the period 1957-58 and it was put into commission in November 1959. Further, to cope with the increasing shipping an additional 1,000 H.P. Steam Tug for assisting vessels to and from berths was acquired at a cost of Rs. 16 lakhs and put into commission in November 1957. In continuation of the new four berths, another Open Berth mainly for handling coal and ore is expected to be constructed at an estimated cost of Rs. 58.68 lakhs. It may be mentioned that an investment of Rs. 1.75 crores was proposed to be incurred to improve the facilities at Cochin Port during the Third Five Year Plan period. It will be seen from the foregoing account that the Cochin Port has made remarkable progress during the period after Independence.

Natural Advantages of Cochin Port

The Port of Cochin is blessed with several natural advantages. It comprises all the water area in the sea and the backwaters bounded on the north by 10° north latitude, which is 2 miles north of Harbour entrance, on the east by the Ernakulam foreshore and on the south by a parallel of latitude about 3 miles south of the entrance, extending on the western side upto the fairway buoy. It includes the Willingdon Island, which has been reclaimed from the backwater and where the deep water wharf is situated. The Harbour entrance between Cochin and Vaipin is 440 yards wide and gives access to about 125 sq. miles of navigable backwater. The Vaipin foreshore on the north side and the Cochin foreshore on the south side of the entrance form a natural backwater. Vessels can lie comfortably in the Harbour and carry on landing and shipping operations even in the worst monsoon weather.

The modern Port of Cochin lies on the direct route to Australia and the Far East from Europe. It is open for

deep water traffic in the worst monsoons and povides a splendid anchorage at all times of the year. Any ship drawing up to 30 ft. draft can enter the Port even in the roughest weather. It serves a vast hinterland of industrial and planting areas comprising the State of Kerala and the southern districts of the Madras, Andhra Pradesh and Mysore States. Foreign and coastal steamer lines touch the Port regularly and Cochin is a passenger port for the United Kingdom and the U.S.A. in South India. It is connected by railway to all the important cities of the country. It is also a halting place for the airlines from Bombay, Bangalore and Madras. The route to the Port forms part of the National Highway leading to the planting districts of the Anamalai and to the planting areas and rich forest tracts of the High Ranges in Kottayam District. Willingdon Island on which the deep water wharf is situated is connected to Ernakulam on the mainland by a combined rail and road bridge and to Mattancherri and Fort Cochin by a a road bridge. The National Highway 47 passes through this Island. In short, Cochin is one of the very few ports in the world having all the three main forms of transport, i.e., by land, sea and air, centred in the same place.

The Cochin Port dominates all transport activites in Kerala and the tonnage handled here crossed the 2 million ton mark in 1959-60. Statistics showing the number and tonnage of vessels that entered Cochin from 1941 to 1961 is given at Appendix V. In 1960-61 the total amount of export and import duties collected at Cochin Port alone came to Rs. 8,90,56,277. The total value of the export and import trade during the year came to Rs. 1,58,33,71,169. With the opening of the Ernakulam-Quilon metre guage rail link with the Cochin Harbour Terminus and the emergence of new industries in Alwaye and surrounding areas, the trade of the Cochin Port will steadily go up. The proposed setting up of the Shipyard and Oil Refinery in Cochin is also a major factor which will add substantially to the trade and importance of Cochin in the years to come.

AIR TRANSPORT

The District has an important place in the air traffic system of South India. There is an Aerodrome at Cochin which is under the control of the Indian Navy. The Indian

Airlines Corporation operates daily services connecting Bombay, Trivandrum, Coimbatore, Bangalore and Madras with Cochin direct. Connecting flights to Delhi, Hyderabad and Calcutta are also available to passengers from Cochin. All the above services are operated by Fokker Friendship Aircrafts. At present the facilities provided for passengers at Cochin Aerodrome are limited, though they are expected to improve when the proposed new terminal building is constructed by the Civil Aviation Department.

The Air Traffic Survey of the Southern Region undertaken by the National Council of Applied Economic Research in 1961-62 has revealed the present low density of air traffic at Cochin and the immense possibilities of its expansion. The total bookings from Cochin during the three years 1958-59, 1959-60 and 1960-61 were only 5,241, 4,897 and 4,913 respectively. Of these, bookings to Trivandrum alone were 1,325, 1,132 and 1,381 respectively. The following table gives the density of traffic in 1959-60.

Density of Air Traffic, 1959-60

Section	Average No. of passengers carried per day	Average freight carried expressed in terms of passengers	Total daily average
Anti-clockwise			
Coimbatore-Cochin	11	5	16
Cochin-Trivandrum	9	3	12
Clockwise			
Trivandrum-Cochin	12	8	20
Cochin-Coimbatore	12	3	15

The low density of traffic is attributed partly to the inconvenient schedule of timings of the air services and partly to the lack of facilities at the Cochin Air-port. It is stated that the air strip at the Cochin Air-port is not long enough nor the area sufficient for handling large planes. The Air-port for Cochin has to be within the easy reach of the large area it has to serve. The Report of the Air Traffic Survey, referred to earlier, suggests that the ideal place for locating the air port for Cochin is Thrikkakkara, on the road from Ernakulam to Kalamasserri, close to Alwaye, which is becoming an industrial area. Besides, it has also recommended the air linking of Calicut and Mangalore, the inclusion of Trivandrum in the Madras-Colombo air

route and the provision of terminal facilities at Cochin port.

TRAVEL AND TOURIST FACILITIES

The District has many attractions to tourists from outside and normal travel and tourist facilities are provided both by Government and private agencies. The Tourist Bungalows and Inspection Bungalows maintained by the State Government provide accommodation for different classes of tourists. There are three Tourist Bungalows (Class I) in this District, viz., (1)Alwaye Palace (2)Bolghatti Palace and (3) Guest House, Ernakulam. These Bungalows are maintained by the State Tourist Department. They are well furnished and provided with all comforts and amenities. The Public Works Department maintains eleven Tourist Bungalows (Class II) and Inspection Bungalows in this District. A detailed list of Tourist Bungalows and Inspection Bungalows with such details as their location, amenities provided etc. is given at Appendix VI.

In addition to the Tourist and Inspection Bungalows maintained by the Government, there are a number of comfortable Hotels in Ernakulam. The Malabar Hotel in Willingdon Island and the Sealord Hotel, Sea View, Grand Hotel, Bharat Tourist Home, Woodlands, Hotel Embassy and International Tourist Home in Ernakulam town may be specially mentioned in this connection.

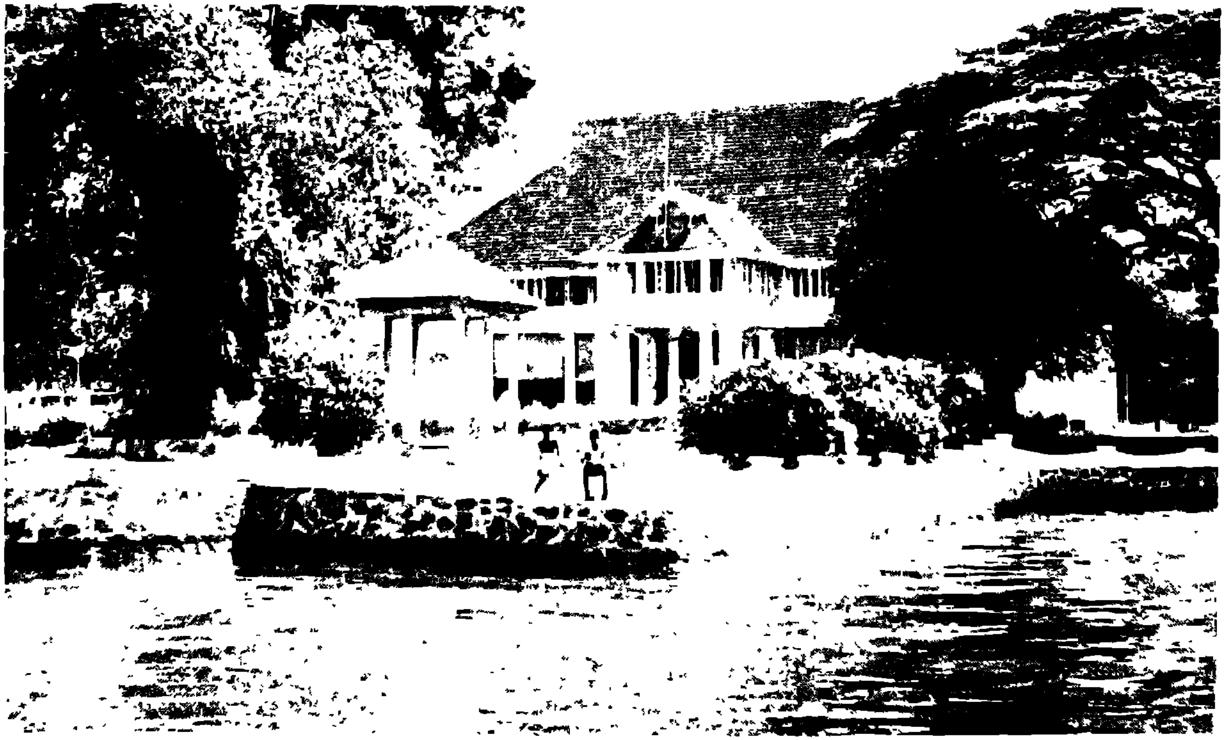
Travel Agents

The Kerala Travels, which is the premier travel agency in Kerala exclusively established for the promotion of travel and tourism, has a branch office in the Willingdon Island. The Harrisons and Crossfield Ltd., Travel Agency and Jai Hind Travels, Private Ltd., too have their offices in Willingdon Island. A Government of India Tourist Office is also functioning here.

POST AND TELEGRAPH OFFICES

Ernakulam District comes under the Ernakulam Postal Division which was formed on July 1, 1964.[1] The Division

1. The Devikulam Taluk of Kottayam District also froms part of the Ernakulam Postal Division.



TOURIST BUNGALOW (OLD RESIDENCY), BOLGHATTI ISLAND

is in the charge of a Senior Superintendent of Post Offices. In 1964 there were two Head Post Offices, 77 Sub-Offices and 242 Branch Offices in the Division. The Head Post Offices were located at Cochin and Moovattupuzha. Moreover, there were two Departmental Telegraph Offices, one at Cochin and the other at Ernakulam. The number of Combined Post and Telegraph Offices was 173. There were 601 Post Boxes. A statement of the number of Post Offices under each Head Office is given below.

	Cochin	Moovattupuzha
Head Post Office	1	1
Higher Selection Grade Sub-office	1	..
Lower Selection Grade Sub-office	10	3
A Class Sub-office	9	1
B do.	11	4
C do.	17	15
Extra Departmental Sub-office	3	3
Extra Departmental Branch office	129	113

The statistics relating to the volume of routine work transacted in the Post Offices of the Division are given below.

Daily average number of ordinary letters posted for despatch	60,226
Daily average number of ordinary letters received for delivery	75,020
Daily average number of money orders issued	2,537
Daily average number of money orders paid	2,338
Daily average number of telegrams sent	926
Daily average number of telegrams received for delivery	630

TELEPHONE EXCHANGES

In 1963 Ernakulam District had 10 Telephone Exchanges. A brief note on each of the Exchanges is given below.

Ernakulam Trunk Exchange

The Ernakulam Trunk Exchange was installed on December 12, 1949. The type of the exchange at the time of installation was T-43 with a capacity of 7 positions. As on April 1, 1963 there were 19 positions. The trunk exchange and local exchange are accommodated in the same building. The Ernakulam Trunk Exchange deals with over 4,000 calls per day on an average.

Ernakulam Local Exchange

The Local Exchange was installed in May 1950. The type of the exchange at the time of installation was CBNM with 3 positions. In June 1953 it was converted into a CBM exchange with 6 positions. Message rate system was introduced in the Ernakulam Exchange with effect from 16th April 1957 and the Exchange was further expanded up to 16 positions. Since the Local Exchange is insufficient to meet the demands of the public for new phone connections, a satellite exchange with 300 connections was cut over on 7th December 1962. This satellite exchange is also housed in the same compound and can expand up to 840 lines.

The connections as on 1st April 1963 in the local exchange were 1,422. It is proposed to convert the present Manual Exchange into an Automatic Exchange. The building to house the Auto Exchange is under construction in the very same compound where the local exchange is situated and an Auto Exchange of 3,000 lines is expected to be cut over into service within two years.

Edappilli Exchange

This is a 50 line SAX opened on 15th January 1962. There were 43 connections as on 1st April 1963. This exchange is to be expanded into a 100 line SAX.

Cochin Exchange

The Fort Cochin Exchange was installed on 15th June 1923, with an original capacity of 100 lines. The Mattancherri Exchange was opened on 28th January 1948 with an original capacity of 400 lines. Both these exchanges were combined and the combined exchange was cut over on 15th December 1955 with a capacity of 800 lines. Two additional positions were cut over on 28th March 1958. The Cochin Auto Exchange was cut over on 12th March 1961 with a capacity of 1,600 lines. The number of main connections as on 1st April 1961, 1st April 1962 and 1st April 1963 were 1,051, 1,259 and 1,464 respectively. The extensions on the above dates were 122, 153 and 179 respectively. The Message Rate System was introduced with effect from 16th April 1957. An Air Conditioning Plant was installed in the Cochin Auto Exchange on 14th January 1961. There is a proposal to increase the capacity by 800 lines.

Willingdon Island Exchange

The Willingdon Island Exchange was installed in August 1945. The Message Rate system was introduced on 30th November 1961. The exchange was converted into an automatic exchange on 30th November 1961. Air Conditioning Plant was installed in September 1962. The number of connections as on 1st April 1961, 1st April 1962 and 1st April 1963 were 202, 242 and 245 respectively. The extensions on the above dates were 64, 274 and 413 respectively. The Naval Base PBX is also connected to the Willingdon Island Exchange.

Alwaye Exchange

The exchange was first installed by the erstwhile Travancore Government and taken over by the P & T Department on 1st April 1950. The working connections during the years 1957, 1958, 1959, 1960, 1961, 1962 and 1963 were 135, 137, 146, 157, 209, 236 and 307 respectively.

Kothamangalam Exchange

The exchange was first installed by the erstwhile Travancore Government and taken over by the P & T Department on 1st April 1950. Originally it was a manual exchange and is now working as an auto exchange. The number of connections during the five years from 1959 to 1963 were 12, 20, 21, 31 and 40 respectively.

Perumbavur Exchange

A Public Call Office was installed by the State Government before integration with the P & T. The PCO was converted into an exchange and 30 line SAX with 20 connections was installed in March 1958. The capacity was expanded to 50 lines during 1962 and to 100 lines in 1963. The number of working connections as on 1st April 1963 was 50.

Parur Exchange

A 50 line SAX with 20 connections was opened at Parur on 22nd May 1956. The capacity was expanded to 100 lines during 1961. The number of working connections as on 1st April 1963 was 77.

Ankamali-Kaladi Exchange

A 25 line SAX with 24 connections was cut over on 22nd March 1959. The capacity was expanded to 50 lines

in 1961. The number of working connections as on 1st April 1963 was 38.

There are also proposals to instal exchanges at Thrippunithura, Udyogamandal and Ankamali.

There has been a steady expansion of telephone facilities in the District in recent years. This is clear from the following table giving statistical data about the number of phone connections, revenue from rental and trunk call charges, number of trunk calls, etc. for the period 1950-51 to 1960-61.

Year	No. of lines connected and No. of phones connected	No. of departmental; non-exchange, lines	Revenue Rental and Trunk call charges Rs.	No. of trunk calls
1950-51	900/758	2	3,61,024	93,852
1951-52	900/839	2	..	..
1952-53	900/821	4	4,53,123	1,23,666
1953-54	1200/989	4	5,25,885	1,36,013
1954-55	1200/1027	6	6,34,209	1,61,862
1955-56	1575/1236	8	8,63,883	2,17,912
1956-57	1825/1478	8	11,68,977	2,41,315
1957-58	1975/1636	8	12,39,101	2,57,601
1958-59	2185/1871	8	14,67,630	2,87,880
1959-60	2535/2232	10	17,70,897	3,34,425
1960-61	3505/2533	12	20,38,472	3,26,187

RADIO LICENCES

The total number of Broadcast Receiver Licences (BRL) issued by the Post Offices in the Ernakulam District for the period 1956 to 1960 is given below.

Number of broadcast receiver licences issued during the years 1956 to 1960

Year	No. of licences
1956	4,009
1957	5,132
1958	6,270
1959	7,206
1960	9,213

Organisations of Employees in the field of Transport and Communications

The following is the list of some of the important organisations of employees in the field of Transport and Communications.

1 The Motor Boat Workers' Union, Ernakulam
2 The Kerala State Water Transport Workers' Union, Ernakulam
3 Alwaye Motor Drivers' Union, Alwaye
4 Ernakulam District Lorry Transport Workers' Union, Cannon Shed Road, Ernakulam
5 The Head and Cart Load Workers' Union, Ernakulam
6 The Cochin Rickshaw and Cycle Rickshaw Thozhilali Union, Jew Town, Cochin
7 The Cochin Swathanthra Rickshaw Thozhilali Union, Cochin
8 Railway Porters' Union, Ernakulam
9 Cochin Port Workers' Association, Willingdon Island, Ernakulam
10 Cochin Thuramukha Thozhilali Union, New Road, Mattancherri
11 Cochin Port Staff Association, Willingdon Island, Mattancherri
12 Akhila Kerala Navika Thozhilali Union, Mattancherri
13 Cochin Port Employees' Union, Cannon Shed Road, Ernakulam
14 Port and Steamer Workmens' Association, Cochin
15 The Motor Boat Workers' Association, Ernakulam

APPENDIX I

Classified List of Roads in Ernakulam District

	Name of road	Length Miles	Furlongs	Feet
	I PROVINCIAL HIGHWAYS			
1	M.C. Road from 117/2	36	5	0
2	Kothamangalam-Thrippunithura Road via Moovattupuzha W.F. Road 5/4 to 16/1.	10	6	0
3	Udayamperoor-Thrippunithura Road	2	0	0
4	Hill Palace Road (Ernakulam boundary to Thrippunithura)	6	4	0
5	Ettumanoor-Ernakulam Road	7	5	0
6	Alwaye-Chinnar Road	17	6	0
7	Moovattupuzha-Kothamangalam Road Miles 1 to 7/2	7	2	0
8	Alwaye-Chinnar Road Miles 17/7 to 33/8	16	2	0
9	Main Central Road Miles 123/1 to 134/5	11	4	0
10	Moovattupuzha-Thodupuzha Road Miles 1 to 11/7	11	7	0
11	Western Frontier Road Miles 1 to 5/3	15	3	0
12	Lalom-Thodupuzha Road	7	2	0
	II DISTRICT ROADS			
1	Perumbavur-Alwaye Road 0/0 to 10/0	10	0	0
2	Kuruppampadi-Kootical Road 0/0 to 4/4	4	4	0
3	Perumbavur-Puthencruz Road	11	2	0
4	M.C. Road to Vengola	7	0	0
5	Keezhillam-Kurichilakode Road	8	0	0
6	Chelamattam-Kodanad Road	7	0	0
7	Kodanad-Thottara Road	0	7	0
8	Ramamangalam Road	3	4	0
9	Ramamangalam Road to Thiruvaniyur	3	0	0
10	Mamala-Piravam Road	8	0	0
11	Vazhakkulam to Chemparakkal Road	3	0	0
12	8th Mile A.V. Road to Kizhakkambalam	4	0	0
13	Pulluvazhi to Mazhuvannur Road	4	5	0
14	8th Mile P.P. Road to Vettur	3	1	0
15	Mazhuvannur to 8th Mile W.F. Road	3	0	0
16	8th Mile P.P. Road to 8th Mile W.F. Road	4	0	0
17	Puthencruz-Chottanikkara Road	4	0	0
18	6th Mile W.F. Road to Mundakkal Thodu	0	2	0
19	136th Mile M.C. Road to 5th Mile W.F. Road	3	0	0
20	Vettur-Valampur Road 2/4 to 6/8	4	5	0
21	Kothamangalam-Ayakad Road	2	0	0
22	Kandanad-Feeder Road	2	2	0
23	12/6 V.U. Road to Mankayilkadavu Road	0	5	185
24	Alwaye-Parur Road	10	0	0
25	3rd Mile A.V. Road to 9/3 P.P. Road	8	4	0
26	Moovattupuzha -Edappilli Road	5	4	0
27	Kizhakkambalam to Chithrapuzha	7	0	0
28	Alwaye-Varapuzha Road	5	0	0
29	7/3 P.P. Road to Kizhakkambalam	5	0	0
30	Chengal-Pallipoothodu Road	4	0	0
31	Kaladi-Manjapara Road	2	4	0
32	Ankamali-Manjapara Road	4	5	0
33	4th Mile A.A. Road to Kaladi	.6	0	0
34	3rd Mile A.A. Road to Thadikkalkadavu	3	0	0
35	Ankamali to Parur Road via Manjali	3	4	0
36	Manjali to Thadikkalkadavu	4	0	0
37	Parur-Chakkarakadavu	1	0	0
38	Parur-Varapuzha Road	7	4	0
39	Parur-Kuriappilli Road	3	4	0
40	Sree Chithira Thirunal Road	4	0	300
41	Methanam-Edappilli Road	5	0	0

APPENDIX I

Classified List of Roads in Ernakulam District—*Contd.*

	Name of road	Length		
		Miles	Furlongs	Feet
42	Manjummel-Muttar Road	2	0	0
43	Chemprakkal-Oorakkad Road	3	4	0
44	U.C. College to Thirumuppam	5	4	0
45	Mannam-Thathappalli Road	2	0	0
46	Parur-Chathanad Road	6	0	0
47	Chengal-Chowara Road	6	4	0
48	Kaladi-Malayattur Road	2	0	0
49	Parur-Chennamangalam Road	1	1	0
50	Pulikkakadavu Road	2	3	0
51	Peppathippara Road	10	6	183
52	Mulamthuruthi-Kanjiramattam Road	6	7	209
53	Mangayil Nettur Road	1	5	81
54	Thirumarayur Road	1	6	0
55	Irimpanam Road	3	0	0
56	Vaipin-Pallippuram Road	13	6	42
57	Palarivattom Road	2	4	126
58	Muringoor -Karukutti Road	3	5	0
59	F.A.C.T. Road	3	1	20
60	Kalamasseri-Kanjirapadi	3	0	0
61	2nd Mile A.P. Road to Thadikkakadavu	1	2	0
62	Thevankulangara-Kacherippadi Road	2	2	0
63	Mamalamukku to Edappilli Railway Road	1	2	0
64	Edappilli Bazaar to Arakkakadavu	3	0	0
65	Kumbalanghi-Chellanam Road	2	0	0
66	Karnakodam Road	1	4	249
67	Mookkannur-Ezhattumughom Road	6	3	0
68	Pandikudi-Chellanam Road	3	4	0
69	Palarivattom-Kumarapuram Road	3	6	0
70	Pallikkara-Vadavukode Road	2	0	0
71	Kaladi Manjapara Road to Mookkannur junction	1	2	0
72	Kothamangalam-Perumbankuthu Road, Miles 3/5/ to 21/7	18	3	0
73	Outlet Road to Periyar Estate	2	2	0
74	Vazhakulam-Kothamangalam Road	5	0	0
75	Muvattupuzha-Nadukani Road	7	2	0
76	Kakkadasseri-Kaliyar Road	3	0	0
77	Kuruppampadi-Kootical Road	2	6	0
78	Varapetti-Pothanicad Road	6	6	0
79	Kothamangalam-Ayerakadu Road	3	0	0
80	Thrikariyur Loop Road	2	4	0
81	Malayinkeezhu-Thrikariyur Road	2	0	0
82	Kothamangalam-Nadukani Road	4	0	0
83	Road from 2/6 Moovattupuzha-Kothamangalam Road to 19th mile Alwaye-Munnar Road	7	0	0
84	Kuthattukulam-Ramapuram Road Miles 0/1/ to 2/2	2	2	0
85	Kuthattukulam Market Road Miles 0/1 to 2/4	2	4	0
86	Palakuzha-Piravam Road Miles 0/1 to 4/8	5	0	0
87	Thalayolaparambu-Koothattukulam Road Miles 7/1 to 12/4	5	4	0
88	Uzhavur Road	1	2	0
89	Piravam-Elanji Road	1	1	0
90	Alupuram Road	1	3	0
91	Onakkur-Anthiyalinkal Road Miles 2/1 to 3/2	1	2	0
92	Edayar Road	5	7	0
93	Kozhippalli Road	4	4	0
94	Moovattupuzha-Palakuzha Road	1	3	0
95	Maradi-Mannathur Road	4	0	0
96	Central Cross Road	8	0	0
97	Palakuzha-Thodupuzha Road	4	0	0

APPENDIX I

Classified List of Roads in Ernakulam District—*Contd.*

	Name of road	Length Miles	Furlongs	Feet
98	Moovattupuzha-Palakuzha Road	6	0	0
99	Moovattupuzha-Piravam Road	4	0	0
100	Maradi-Mannathur Road	2	2	0
101	Vazhakulam-Vazhithala Road	2	4	0
102	Vettur-Valampur Road	2	0	0
103	Vazhakulam-Kothamangalam Road	4	0	0
104	Mooattupuzha-Neduvakkad Road	2	0	0
105	Road from 136th Mile M.C. Road to 6th- Mile W.F. Road	2	0	0
106	Anchalapetti-Kudumbanad Road	4	0	0
107	Palakuzha-Piravam Road	5	1	0
108	Road from Pandiampara to Netchurkadavu	2	2	0
109	Piravam-Elanji Road	3	0	0
110	Road from Onakkur to Antialinkal Road	2	1	0
111	Piravam -Kaduthuruthi Road	1	0	0
112	Piravam-Peppathipara Road	2	0	0
113	Road from 6th Mile Western Frontier Road to Mudakkil thodu	5	2	0
114	Thodupuzha-Arakulam Road	12	0	0
115	Thodupuzha-Udumbannur Road	9	7	0
116	Karikode-Velliamattom Road	9	5	0
117	Palacozha-Thodupuzha Road	5	6	0
118	Thodupuzha-Manakad Road	1	3	0
119	Manakad-Areekuzha Road	4	0	0
120	Vazhithala-Purapuzha Road	3	3	0
121	Nediyasala-Purapuzha Road	1	3	0
122	Manakad-Nediyasala Road	2	0	0
123	Kaliyar-Estate Road	6	0	0
124	Karimannur-Vandamattom Road	3	4	0
125	Kakkadasseri-Kaliyar Road	4	0	0
126	Kumaramangalam-Neerampuzha Road	4	4	0
127	11th Mile Moovattupuzha-Thodupuzha Road to Kalur	3	7	0
128	Nagapuzha Kalur Road	2	0	0
129	Vazhakulam-Kothamangalam Road	2	0	0
130	Vazhakulam-Porapuzha Road	4	0	0
131	Road from Muttom-Karimkunnam Road to Anthinad Melukavu Road	1	2	0
132	Muttom-Karimkunnam Road	6	0	0
133	Karimkunnam-Purapuzha Road	4	0	0
	III VILLAGE ROADS			
1	Approach road to Forest Bungalow, Malayattur	0	1	540
2	Kaladi Asramam Road	0	4	220
3	A.P. Road to Mangalapuzha Seminary	0	1	490
4	Edappilli-Perandoor landing Road	1	4	0
5	Edappilli Railway Station Road	1	0	0
6	Edappilli-Thrikkakara Temple Road	0	6	0
7	Road from 8/7 P.A. Road to Chempakasserikadavu	0	2	0
8	Angamali Railway Station Road	0	1	0
9	Karukutti Railway Station Road	0	0	366
10	Loop Road from 150th Mile M.C. Road to 7th Mile A.A. Road	0	4	0
11	152nd Mile M.C. Road to Mookkannur	1	6	0
12	Kurumthottiparambu Road	1	0	
13	Manjali Market Landing Road	1	6	0
14	9th Mile A.P. Road to Chennamangalam	0	5	0
15	Edappilli Railway Station Level Cross Road	0	3	70
16	Kothakulangara Landing Road	0	4	0

APPENDIX I

Classified List of Roads in Ernakulam District—*Contd.*

	Name of road	Length Miles	Furlongs	Feet
17	Alangad to Alwaye Road via Kodungallur	4	0	0
18	Perandoor-Kalur Road	0	7	0
19	Approach Road to Aluminium Factory	1	4	0
20	Koonammavu to Cheriappilli via Kottuvalli	3	4	0
21	Leper Asylum Road	1	0	600
22	Elamkulam Road	1	7	462
23	Road south of Thevara Bridge	1	2	324
24	Palluruthi-Kumbalangi ferry Road	0	6	330
25	Road in Kumbalangi village	2	0	0
26	Kumbalangi-Ezhupunna Road	3	4	0
27	Veliyanad School Road	1	1	300
28	Vaduthala Road	1	2	180
29	Thrikkapuram to Thonniyakavu	0	4	0
30	Moozhikkulam to Peechanikkad	1	5	0
31	Kuruppampadi-Kootikkal Road to Periyar river	6	7	0
32	Meempara-Netchoor Road	4	6	0
33	Kozhencherri-Poothrikka Road	1	6	0
34	Mangalathunada-Pangode Road	3	0	0
35	Vengoor-Kidangoor Road	1	4	0
36	Moovattupuzha Town Roads	3	6	0
37	Approach road to Sub-Registry Office	0	0	330
38	Road from Watch Station to Eranallur	4	0	60
39	Road from Kavumkara to Eranallur	5	0	0
40	Road from 128th Mile Main Central Road to Maradi Church	0	4	0
41	Road from 0/3 Moovattupuzha-Thodupuzha Road to Watch Station	0	4	0
42	Arakuzha Church Road	0	4	0
43	Central Cross Road IVth Section	2	0	0
44	Meenkunnam-Mannathoor Road	2	0	0
45	Road from Post Office junction to Maradi	0	3	0
46	Old Pettah Road	0	2	0
47	Approach road to Velloorkunnam temple and N.E.S. Bathing Ghat	0	2	0
48	Approach Road to Ezhava temple	0	3	0
49	Approach Road to English Middle School, Moovattupuzha	0	1	0
50	Road from 2/2 Arakuzha to meet 4th mile Moovattupuzha-Thodupuzha Road	2	7	0
51	Anicadu-Franelloor Road	2	7	0
52	Road from 134th Main Central Road to 19th Mile Alwaye-Munnar Road	6	0	0
53	Constructing ramp in Kavalsthalam crossing	0	4	0
54	Vattakudi Ferry Road	1	4	0
55	Rakkad-Kadathi Road	2	0	0
56	Maradi-Kayanad Road	2	6	0
57	Anicadu-Aysvana Road	0	6	0
58	Piravam -Ramamangalam Road	2	2	0
59	Piravam Salt Bank Shell Road	0	5	0
60	Mamala-Piravam Road	3	5	0
61	Piravam-Vettikkal Road	3	0	0
62	Maintenance of Netchoorkadavu Road	2	1	0
63	Road from 8th Mile Moovattupuzha-Piravam Road to Mamalasseri 1st and 2nd Section (300+563)	2	7	0
64	Road from Pampakuda Market to Keezhuvannur	2	4	0
65	Anthiyalinkal-Mannathur Road	2	4	0
66	Road from 6/2 Peppathipara-Piravam Road to Mamalasseri	2	0	0
67	Kuroor Road	0	6	0

APPENDIX I

Classified List of Roads in Ernakulam District—*Contd.*

	Name of road	Length Miles	Furlongs	Feet
68	Approach road to English High School, Vadakara	0	3	0
69	Chakalapara-Keezhkombu Road	2	0	0
70	Keezhkombu-Varapetti Road	1	4	0
71	Kothamangalam Street Road	0	3	0
72	Road from 6/4 Moovatupuzha-Kothamangalam Road to Kothamangalam river	0	6	0
73	Thrikkariyoor-Vettilapara Road.	4	4	0
74	Kavumkara-Thrikkariyoor Road	1	4	0
75	Kozhippalli Adivattu Market Road	2	4	0
76	Adivattu-Pareekanni Road	3	0	0
77	Road from 2/7 Kothamangalam-Perumbankuthu Road to Bhoothathankettu	4	0	0
78	Road from Kavalangad to Pareekanni	3	0	0
79	Neriamangalam Sastha Temple Road	3	0	0
80	Thodupuzha-Pettah Road	0	4	0
81	Road from 12th Mile Muvattupuzha-Thodupuzha Road to 1st Mile Thodupuzha-Udumbannur Road	1	0	0
82	Road from Taluk Katcherry to Kanjiramattom	0	4	0
83	Kanjiramattom Temple road	0	4	0
84	Road from Pullappalla Kadavu to Veliyanikkad Temple	3	0	0
85	Road from Manakad to Kolani	1	2	0
86	Road from Karikode to Kanjiramattom	1	0	0
87	Karikode-Sankarapalli Road	6	0	0
88	Kalayanthani-Kudayathoor Road	2	0	0
89	Parakadavu-Arrekuzha Road	1	1	0
90	Road from Vengalloor to Kaloor Church	5	1	0
91	Kumaramangalam-Neerampuzha Road	3	0	0
92	Vazhakulam-Kodikulam Road	3	5	0
93	Neerampuzha-Kaloor Road	4	4	0
94	11th mile Moovattupuzha-Thodupuzha Road to Kaloor (last portion)	3	2	0
95	Arappamattom-Kodikulam Road	3	4	0
96	Neyyasseri Thokamban Saddle Road	10	0	0
97	Karimannoor-Kodikulam Road	4	0	0
98	Road from 9th mile Thodupuzha-Udumbannur Road to Peringasseri	3	2	0
99	Karimannoor-Vellamthanam Road	3	2	0
100	Erattupettah-Arakulam Road and approach road to Arakulam temple	2	0	0
101	Road from 3/2 Karikode Sankarapalli Road to 11/2 Thodupuzha-Arakulam Road	8	4	0
102	Karikode-Kunnam Road	2	0	0
103	Velliamattam-Arakulam Road	4	0	0
104	Kanjar-Pallikanam Road	3	0	0
105	Pattakudi-Manianthram Road	2	0	0
106	Nedumattom-Malamkara Road	2	0	0
107	Nagapuzha-Kumaramangalam Road	1	0	0
108	Chattupuzha-Palakuzhi Road	1	0	0

IV TOWN ROADS

Alwaye

1	Approach road to Railway bridge	1	0	0
2	Approach road to Marthanda Varma bridge	0	1	0
3	East & West approach roads to Railway Station	0	5	0
4	M.M. School approach road	0	3	0
5	Hospital loop road	0	5	0

APPENDIX I

Classified List of Roads in Ernakulam District—*Concld.*

	Name of road	Length Miles	Furlongs	Feet
6	Market Landing Road	0	3	0
7	Staff Quarters Road	0	3	0
8	Hospital loop road to Power house	0	5	0
9	Approach Road to Krishna swami Temple	0	0	228
	Parur			
10	Parur Fort to Varapuzha	0	2	120
11	Vedimarakkal Road	0	3	0
12	Road around Zilla Court	0	2	0
13	Kutcherry Canal Bank Road	0	4	0
14	Kalapady Velankadavu Road	0	6	0
15	Pottentheruvu Road	0	6	0
	Thrippunithura			
16	Thrippunithura Town Road (not opened to all)	1	7	606
17	,, (opened to all)	3	1	480
	Ernakulam			
18	Shanmukhom Road	0	4	633
19	Banerji Road	0	4	20
20	Broadway	0	5	560
21	Foreshore Road	1	3	100
22	Tass Hall Road	0	1	0

APPENDIX II

Railway Stations in Ernakulam District

Station	Inter Distance Miles	No. of passengers booked	Tonnage of goods (Mds) Inwards	Tonnage of goods (Mds) Outwards
	METRE GAUGE	1959-60		
Ernakulam-Quilon Section				
Ernakulam Jn.				
	6¼			
Thrippunithura		31,251	400	131
	5			
Mulanthuruthi		29,727	198	1,832
	3			
Kanjiramittam		32,581	9	..
	3¾			
Piravam Road		52,868	84	434
	BROAD GAUGE	1959-60		
Cochin-Shoranur Section				
Cochin Harbour Terminus WVL		124,333	10,157,668	13,081,352
	1½			
Mattancherri Halt		49,493	..	..
	1¾			
Perumanur Halt		14,171	..	..
	1½			
Ernakulam Jn. VNW		577,691	518,818	457,678
	1½			
Ernakulam Town W		237,771	814,511	7,268,566
	4			
Edappilli		58,783	1,471	211
	2¾			
Kalamasseri Halt		10,239	..	..
	3¾			
Alwaye W		456,761	1,400,656	1,301,271
	2			
Chowara		79,928	156	1,185
	3¾			
Ankamali for Kaladi		119,152	34,574	224,243
	3			
Karukutti		50,357	2,533	4,542

N—Non-Vegetarian Refreshment Room
V—Vegetarian Refreshment Room
W—Waiting Room
VL—Vegetarian Light Refreshment Room

APPENDIX III

Landing places, their location and the transport facilities to places served by them

West Coast Canal

Taluk	Name of landing place	Principal places served by the landing place	Transport facilities available
Parur	Parur Market landing	Parur taluk	There is an approach road from Parur Market
Cochin	Elangunnapuzha	Elangunnapuzha village	Only foot path to Vaipin-Pallippuram road
Kanayannur	Ernakulam Goods Station	Ernakulam Goods Station	There is an approach road to Railway Station Road
"	Ernakulam Market landing	Erankulam Market	There are approach roads on all sides
"	Menaka Jetty	"	This is on the side of the Shanmughom Road
"	Padiyattukulam	"	There are approach roads on all sides
"	Thevara	Thevara Perumanur village	The landing place is located on the side of Thevara-Ernakulam Road
Cochin	Kalvetty canal Hospital basin	Fort Cochin Municipal area	There is an approach road
"	Kalvetty canal Market landing	"	"
"	Mattancherri Palace Jetty	Mattancherri Municipal area	"
"	Karivilippady canal port	Rameswaram village	"

APPENDIX IV

Particulars of Passenger Motor Boats operating on different Routes—Ernakulam District

Route	Distance miles	No. of boats operating	No. of trips	Duration of transport Hrs.	Duration of transport Mts.	Fare charged Rs.	Fare charged P.	No. of passengers carried per day
Ernakulam-Kottapuram (Vembanad lake, Cranganore lake)	22	25	25	3	30	00	44	4,200
Ernakulam-Varapuzha (Vembanad lake, Periyar river)	8	13	25	1	50	00	25	3,100
Ernakulam-Njarakkal (Vembanad lake, Cranganore lake)	6	3	6	1	15	00	25	150
Njarakkal-Eroor (Cranganore lake, Periyar)	6	2	6	1	15	00	25	175
Cherai-Poovathusseri (Chalakudi river)	14	4	4	2	45	00	37	160
Ernakulam-Cheriyapilli (Vembanad lake, Cranganore lake)	18	1	2	2	30	00	37	120
Ernakulam-Kumbalangi (Vembanad lake)	6	1	2	1	15	00	25	80
Ernakulam-Arookutti (Vembanad lake)	10	2	4	2	00	00	25	175
Ernakulam-Sherthalai (Vembanad lake, Kuthiyathodu)	23	2	2	4	00	00	44	100
Ernakulam-Kottayam (Vembanad lake)	50	2	2	9	00	00	87	300
Ernakulam-Alleppey (Vembanad lake)	46	7	7	9	00	00	75	1,000
Ernakulam-Changanacherri (Vembanad lake, Pamba river)	60	4	2	9	30	1	00	300
Ernakulam-Chengannur (Vembanad lake, Pamba river)	77	2	1	13	00	1	25	180

APPENDIX V

Shipping Trade of Cochin

Year (April to March)	No. of Steamers and Tonnage		No. of Sailing Vessels and Tonnage		Total	
	No.	Tonnage	No.	Tonnage	No. of Vessels	Tonnage
1941-42	329	7,59,705	650	42,841	979	8,02,546
1942-43	365	8,68,266	1,122	70,703	1,487	9,38,969
1943-44	306	7,40,619	1,735	1,42,005	2,041	8,82,624
1944-45	389	11,34,289	1,449	1,17,547	1,838	12,51,836
1945-46	494	16,21,252	1,108	98,847	1,602	17,20,099
1946-47	543	15,05,661	454	43,185	997	15,48,846
1947-48	582	17,76,573	593	46,811	1,175	18,23,384
1948-49	703	21,27,356	579	42,605	1,282	21,69,961
1949-50	802	21,82,894	444	38,498	1,246	22,21,392
1950-51	871	23,33,886	287	22,288	1,158	23,56,174
1951-52	792	23,19,726	347	27,003	1,139	23,46,729
1952-53	922	26,26,350	418	32,873	1,340	26,59,223
1953-54	1,034	29,97,807	344	31,461	1,378	30,29,268
1954-55	1,007	30,15,372	270	24,028	1,277	30,39,400
1955-56	941	28,72,352	283	22,805	1,224	28,95,157
1956-57	965	28,95,168	247	27,230	1,212	29,22,398
1957-58	1,039	32,17,558	210	21,962	1,249	32,39,520
1958-59	1,219	37,79,381	174	18,250	1,393	37,97,631
1959-60	1,347	40,94,190	103	11,371	1,450	41,05,561
1960-61	1,337	42,83,893	144	15,239	1,481	42,99,132

APPENDIX

List of Rest Houses, Travellers'

	Name	Taluk	Location	Nearest Railway station, if any, and the distance from it
1	Bolghatti Palace, Ernakulam	Kanayannur	Ernakulam Town	Ernakulam Junction (about 1½ miles)
2	Guest House, Ernakulam	,,	,,	Ernakulam Junction (1 mile)
3	Alwaye Palace	Alwaye	Alwaye Town	Alwaye (3 furlongs)
4	Travellers Bungalow, Ernakulam	Kanayannur	Ernakulam Town	Ernakulam Junction
5	Inspection Bungalow, Fort Cochin	Cochin	Fort Cochin (near Beach)	Harbour Terminus (5 miles)
6	Camp Shed, Perumbavur	Kunnathunad	Perumbavur Town	Alwaye (10 miles)
7	Camp Shed, Parur	Parur	Parur Town 9/5 Alwaye-Parur Road	Alwaye (10 miles)
8	Travellers' Bungalow, Alwaye	Alwaye	Alwaye Town	Alwaye
9	Ankamali Camp Shed	Alwaye	Ankamali (near Block Headquarters)	Ankamali (1 mile)
10	Puthencruz Camp Shed	Kunnathunad	Puthencruz	Alwaye
11	Traveller's Bungalow, Kaladi	Alwaye	Near Kaladi Junction	Ankamali for Kaladi (4½ miles)
12	Moovattupuzha Camp Shed	Moovattupuzha	Located at 0/1 in the deviation road to the Camp Shed at 129/7 M. C. Road	Piravam about 12 miles
13	Thodupuzha Rest House	Thodupuzha	At 11/7 M. T. Road	do. 24 miles
14	Neriamangalam Camp Shed	Neriamangalam	..	Alwaye

VI

Bungalows, etc.,

By whom maintained	Class to which it belongs	Rates charged	Nature of accommodation and facilities provided
Tourist Department	1st Class	Rs. 10 per head per day	1st Class accommodation—6 Rooms
"	"	Rs. 5 per head per day	1st class accommodation
"	"	Rs. 6 per head per day	do. 6 Main & 4 Annexe. Catering exists
P. W. D.	Class II	Rs. 2.50 per head per day	1st class accommodation—water supply, electrified, 24 double rooms—catering exists
"	"	Re. 1 per head per day	Electrified—water supply—2 double rooms
"	"	Rs. 1.50 per head per day	No pipe water—2 single rooms
"	"	"	do. 2 double rooms—catering exists
"	"	Rs. 2.50 per head per day	Water supply—electrified—6 double rooms catering exists
"	Camp Shed	..	Electrified—no pipe—2 double rooms— Not rented out to Public
"	"	..	Not electrified—no flushout—no pipe water supply—not rented out to public
"	Class II	..	12 rooms
"	"	Rs. 1.50 per day	Bath & latrine are attached to the rooms which are electrified
"	"	"	"
"	"	"	"

CHAPTER VIII

MISCELLANEOUS OCCUPATIONS

Public Employees

Ernakulam town had been the capital of the erstwhile State of Cochin till the integration of that State with Travancore in 1949. Hence a number of Government Offices had all along been located here. With the formation of the new Ernakulam District the town became the seat of almost all important District Offices in addition to being the seat of the High Court of the new State. In view of its central position and its proximity to the Cochin Harbour a number of Central Government Offices and quasi-Government institutions are also located in Ernakulam town. The offices of the Central Government are functioning in the Willingdon Island and Fort Cochin also. Consequently a large number of persons are employed in the public services in this District. The Employment Market Report for the quarter ending September 30, 1963 shows that 33,466 persons were employed in the public services under the Central and State Governments together. Women constituted 14% of the total number of public employees. In the administrative Departments and Offices of the Central Government alone there were 6,043 persons while the number of persons employed in the offices of quasi-Government organisations and local bodies came to 1,681. Public employees in administrative departments and offices of the State Government excluding Educational Services, Scientific and Research work, Medical and Health Services, and a few other Miscellaneous Services came to 4,494. There are more Central Government employees in Ernakulam District than in any other District of Kerala.

The amenities enjoyed by public servants in Ernakulam are the same as those in other Districts. The State Government servants get Dearness Allowance and House Rent Allowance in addition to their basic pay. The most difficult problem facing the public servants in the District is that of

accommodation, especially in Ernakulam and its surrounding areas. The rent of rooms and houses in the town is so exorbitant that low-paid officers are hard hit. In view of the difficulty experienced by the public servants in getting suitable residential accommodation at reasonable rates of rent, the Government have taken steps either to provide them with living quarters or loans to build their own houses. Ernakulam and Thrikkakkara are the two places chosen by the State Government for the construction of Non-Gazetted Officers (N.G.O.) Quarters. In Thrikkakkara alone 100 houses are under construction. The members of the Civil and Defence establishments stationed at Cochin are provided with housing colonies in the Willingdon Island. They have also a school for their children in the Island. The Port Hospital and the Isolation Hospital maintained by the Cochin Port Trust provide facilities for medical treatment to the staff.

The public employees have their own associations in this District to discuss matters of common interest and ventilate their grievances. The N. G. O. Association, Ernakulam, Public Health Staff Association, Ernakulam, Sub-Registrars Association, Ernakulam, Non-Graduate Government Employees Association, Ernakulam, Ernakulam Government Press Employees Union, Municipal Lower Grade Staff Association, Ernakulam, Kerala Physical Directors Association, Alwaye and High Court Staff Association, Ernakulam are the important organisations of the public servants employed under the State Government in the District.

LEARNED PROFESSIONS

The Teachers, Doctors, Lawyers and Engineers form the most important of the learned professions. The information available on each of these professions is given below.

Teachers

Teachers are an important occupational group in the District as there are a large number of Schools and Colleges and more and more of such institutions are being established to meet the growing educational needs of the people. The reports of the District Educational Officers show that in

1962-63 there were 10,585 teachers in the Primary and Secondary Schools of this District. Of these 5,207 were men and 5,378 were women. In all the Colleges together 483 teachers were employed during the same period. The Employment Market Report for the period ending September 31, 1963 reveals that 12,237 persons (4632 in the public sector and 7605 in the private sector) were employed in educational services of a non-technical character, 355 persons (285 in the public sector and 70 in the private sector) in educational services of a technical and vocational character and 226 persons in scientific and research work, all in the public sector. The lecturers and teachers of all categories have their own organisations the object of which is to get their grievances in regard to emoluments, service conditions etc., redressed at the hands of the Government. The teachers of Government and Private Colleges have their separate associations. The most important associations of School teachers are the Kerala Government Primary Teachers Association, Departmental Graduate Teachers Association, Kerala Aided Private School Teachers Association and Private Secondary School Teachers Association.

Doctors

With a net-work of Government Hospitals and Dispensaries and a large number of private dispensaries functioning in the District, the medical profession undoubtedly occupies a prominent position. The Employment Market Report for the period ending September 30, 1963 shows that 2,268 persons were employed in Medical and Health Services. Of these 2,081 were in the public sector and 187 in the private sector. The figures include those for both technical and non-technical personnel. The report of the District Medical Officer, Ernakulam, shows that in 1963 there were 90 doctors employed in the Government Hospitals and Dispensaries in Ernakulam District. The Ayurvedic physicians also form a very important segment of the medical profession. Apart from the Government owned Ayurvedic Hospitals and Dispensaries, there is an *Ayurvedic Vaidyasala* in almost every locality. In these *Vaidyasalas* the *Vaidyans* are assisted by Ayurvedic Compounders and other Ayurvedic workers. The State Government have prescribed Rs. 65 as minimum wage for Vaidyans, Rs. 50 for Compounders and Rs. 40 for other Ayurvedic Workers. The members of the medical profession have

formed their own organisations in the Ernakulam District. The Cochin Branch of the Indian Medical Association with its headquarters at Ernakulam had 70 members on its rolls in 1963. The most important organisation of Ayurvedic physicians functioning in the District is the Kerala Ayurveda Mandalam. Its district office is located at the Madhava Pharmacy, Jaya Sowdham Buildings, Ernakulam.

Lawyers

The legal profession occupies a position of primacy in the public life of the District. The existence of the Law College and the High Court at Ernakulam accounts for this pre-eminent position held by the lawyers. Many of the prominent politicians of the State reside in Ernakulam and practise at the High Court. According to the information supplied by the Registrar, Kerala High Court, there were 439 legal practitioners in this District in 1962 of whom 388 were Advocates of the Kerala High Court. The information on Bar Associations is given in Chapter XII.

Engineers

Engineers are employed in the Public Works Departments of the Central and State Governments and quasi-Government bodies like the State Electricity Board and the Cochin Port Trust. Information collected from various sources in 1963 shows that there were 4 engineers under the Central Public Works Department, Ernakulam, 4 in the Bridges Division, Alwaye, 39 in the Periyar Valley Irrigation Division, Perumbavur, 16 in the Idikki Hydro-Electric Project, 9 in the Public Health Division, Alwaye, 3 in the Stores Division (Electricity), Alwaye, 11 in the Transmission Division, Alwaye, 28 in Irrigation Division, Ernakulam, 16 in the Public Health Division, Ernakulam, 14 in the Electricity Division, Ernakulam, 24 in the Buildings and Roads Division, Ernakulam and 13 in the Buildings and Roads Division, Moovattupuzha. There were 23 engineers employed under the Cochin Port Trust.

The Mar Athnasius College of Engineering, Kothamangalam, had 20 members on its staff in 1962-63. This College which is the only one of its kind in the District contributes its share in enriching the engineering profession in the State.

The engineers play a relatively more important part in the industrial sector in this District than in any other District of Kerala. This is because of the large number of industrial and commercial establishments functioning in the Alwaye-Ernakulam area. The statistical information collected in 1964 regarding the number of engineers employed in certain select industrial concerns in the District is given below:—

	Name of Concern	Number of Engineers
1	Travancore-Cochin Chemicals, Alwaye	36
2	Hindustan Machine Tools, Kalamasserri	80
3	Premier Tyres, Kalamasseri	5
4	Hindustan Insecticides, Alwaye	8
5	Tata Oil Mills, Ernakulam	21
6	Indian Aluminium Company, Alwaye	21
7	Ogale Glass Manufacturing Company, Alwaye	2
8	Indian Rare Earths, Ltd., Alwaye	7
9	Fertilisers and Chemicals, Travancore, Ltd., Alwaye	74

The engineers have formed their own associations. The engineers employed in the P.W.D. and allied Departments of Government are members of the Association of Engineers, Kerala State, while those employed under the Kerala State Electricity Board are members of the Kerala State Electricity Board Engineers Association. Both these associations function with their headquarters at Trivandrum. With a view to making available advanced industrial engineering techniques to large industrial organisations as well as to the numerous small and medium-sized industries a branch of the Institute of Industrial Engineers (India) has also been set up in Ernakulam in May 1964. This is the second branch of the Institute to be set up in the country, the first one being in Bombay. The aim of the Institute is to promote better understanding and appreciation of industrial engineering techniques, provide facilities for inter-change of ideas and foster education and research in industrial engineering. It also seeks to help in maintaining a high professional standard besides formulating and sustaining a code of ethics among industrial engineers.

Journalists

The Kerala Union of Working Journalists has a branch of its own at Ernakulam. In 1964 the number of working journalists employed on the staff of the newspapers

published from the Ernakulam District was 35 and out of this 20 were members of the Union. Besides there are also the District correspondents of newspapers published and news agencies operating from outside the District.

DOMESTIC AND PERSONAL SERVICES

The foregoing survey does not exhaust all fields of economic activity. Those who are left unaccounted so far are engaged in domestic and personal services which include domestic servants, cooks, washermen, barbers, tailors etc.

Domestic Servants

Domestic servants are employed by upper class families as well as by a section of the middle class. In view of the steady industrialisation of the District and the growth of Cochin as a Major Port, the avenues for employment in Ernakulam and suburbs have increased considerably in recent years. Hence there is a dearth of persons volunteering for service as domestic servants. In rural areas the monthly wage for domestic servants varies from Rs. 5 to Rs. 10 but in urban areas, especially in Ernakulam and surrounding areas, the wage rate is much higher, sometimes as high as Rs. 20 or 25. In addition to money wages, the domestic servants get food and shelter and this fact partly explains the difference between the money wages of domestic servants and other categories of employees.

Barbers

The barbers form another important occupational class. The traditional barbers used to render religious service to the Hindu community. They used to visit the homes of their customers and receive payment in kind. But as civilization advanced this practice gradually died out and barber shops sprang up everywhere. In the barber shops of the villages the barbers are assisted in their work by male members of their families while in the town areas they generally employ paid workers. According to the Report of the Minimum Wages Committee for Shops and Establishments (1960) there were 38 barbers in Ernakulam and Thrippunithura towns, 128 in Mattancherry and Fort Cochin, 10 in North Parur, 10 in Alwaye, 8 in Perumbavur, 7 in Moovattupuzha and Kothamangalam and 2 in Thodupuzha and Kuthattukulam, all employed in the barber shops

in the respective localities. In the urban areas the charge for a hair cut is 75 Paise and that for a shave 25 Paise. The charges are lower in rural areas. The workers employed by the owners of the barbershops get a weekly or monthly wage and the profit which is usually substantial goes to the owners of the shops. According to the survey conducted by the Minimum Wages Committee for Shops and Establishments the monthly wages of barbers employed in Barber shops in Ernakulam town varied from Rs. 75 to 105 per mensem, in Mattancherri and Fort Cochin from Rs. 30 to Rs. 75, in North Parur Rs. 60, in Alwaye Rs. 22½ to Rs. 55, in Perumbavur Rs. 54 to Rs. 60, in Moovattupuzha and Kothamangalam from Rs. 45 to Rs. 60 and in Kuthattukulam and Thodupuzha from Rs. 35 to Rs. 60. Government have fixed Rs. 50 as the minimum wage for barbers employed in shops. The Thodupuzha Taluk Barbers Association is one of the registered Trade Unions in the District.

Washermen

The washermen also occupy an important place among the miscellaneous occupations of the District. The old practice of their visiting the houses of customers is still widely prevalent. But in towns laundries or washing homes have sprung up in large numbers. People take their clothes to these laundries and get them washed. But the owners of the laundries also send out their paid workers to collect clothes from the customers. In the villages almost all dhobies and in towns a few of them get the clothes washed by members of their families. The owners of big laundries, however, employ paid workers for washing clothes. Ironing is done in the laundries or in the houses, as the case may be. The rate charged for washing 100 pieces of cloth varies from Rs. 10 to 15. For what is called 'urgent wash' the charge is much higher. In view of the fact that dhobies delay the delivery of washed clothes, people who can afford have begun to use terylene clothes which can be easily washed by the wearers themselves and which need not be ironed frequently. Terylene clothes and woollen suitings are to be petrol-washed or dry-cleaned only occasionally. So in Ernakulam and other urban areas shops for dry cleaning are also being established. The dry cleaners charge from 60 nP. to 80 nP. for washing terylene shirts, Rs. 1.50 for woollen

pants and Rs. 1.50 for woollen coats. The Kerala Government have prescribed a minimum wage of Rs. 45 per mensem for Washermen and Ironing Workers employed in laundries.

Tailors

Ernakulam and suburbs have always hummed with life, educational, official and commercial. Tailors have, therefore, been in demand and have had a definite place in the occupational structure of the area. They generally congregate near the cloth shops, some of them setting up their machines in the front verandah or somewhere on the premises of the cloth shop itself. Many practise their trade in rooms rented in the residential areas where it is easy for them to meet customers and satisfy their personal tastes and fancies in the matter of dress. Personal contact with the customer is a great advantage in this trade and the small-scale tailor with a limited number of customers always manages to compete successfully with the big manufacturers of "ready-mades". The tailors generally enjoy permanent employment and do work on all days except Sundays. Some tailors own their own machines, paying for them on instalment basis and run their own business. Some are employed by owners of shops or machines and are paid regular wages. The report of the Minimum Wages Committee for Shops and Establishments (1960) shows that there were 42 tailors in Ernakulam and Thrippunithura, 73 in Mattancherri and Fort Cochin and 14 in Alwaye, all employed in tailoring shops. Their wages rates varied from Rs. 60 to 90 in Ernakulam and Rs. 45 to 60 in Mattancherri and Fort Cochin. The Government have fixed Rs. 50 as the minimum wage (monthly) for such employees. Among the organisations of tailors in the District the Shop Employees and Tailors Union, Ernakulam, and Thodupuzha Taluk Tailors Association, Thodupuzha, have been registered as trade unions with the Registrar of Trade Unions, Kerala State.

Hoteliers

The Hoteliers form an emerging occupational class of some importance in Ernakulam District. Unlike the domestic servants, those who are employed in hotels and restaurants are an organized lot and they get better wages than the former. In spite of this the general condition of the Hotel employees is unsatisfactory and there is a tendency

on the part of the workers to migrate from one establishment to another. In order to check this practice a minimum wage has been recommended for them. In addition to the wages, the employees also get food free of cost. The prevailing rates of wages for various categories of Hotel employees in Ernakulam town as per the findings of the Minimum Wages Committee for Shops and Establishments (1960) and the minimum wages prescribed by Government for them are as follows.

Category of Workers	Prevailing rates of wages		Minimum wages prescribed by Government
	Minimum Rs.	Maximum Rs.	Rs.
Cooks	20	45	30
Tea makers	20	45	27
Sweet makers	20	45	30
Suppliers	12	30	27
Waterman	7	15	20
Grinders	12	30	
Cleaners	7	15	20
Accountants	30	50	30

The number of hotels and restaurants has increased phenomenally in Ernakulam in recent times as a result of the progress of industrialisation and urbanisation. The hote industry is having almost a boom in this area. Because of the heavy influx of industrialists, businessmen and tourists the charges levied for almost all items have gone up in Hotels and Restaurants. The employees in this industry have formed their own associations. The following are a few associations of Hoteliers:—Cochin Port Canteen Employees Union, Ernakulam, the Indian Naval Canteen Service Employees Union, Ernakulam, Ernakulam District Hotel and Tea Shop Workers Union, Cochin, Tatapuram Canteen Employees Union, Ernakulam, Alwaye Hotel Mazdoor Sabha, Alwaye, Ernakulam Hotel Thozhilali Union, Ernakulam, Hotel and Shop Workers Union, Thrippunithura and Moovattupuzha Hotel Thozhilali Union, Moovattupuzha.

Other Occupational Classes

Apart from the main occupational classes referred to above, there are several others peculiar to this District which come under the group "Miscellaneous Occupations." A few such classes may also be considered here. One of the

most important is the hand-cart men and head-load workers who attend to heavy transport work along the roads over relatively short distances. Hand-carts are more numerous in Mattancherri town which is the biggest business centre in the District. They are used to transport stone, timber, corn, general merchandise and a variety of other articles from place to place. The hand-cart men are seldom owners of the carts which they pull or push. These are hired by them from building and general contractors, merchants and businessmen. The hand-carts are used only when it is difficult for a single person to carry the load on his head. Hence the hand-cart and head-load workers do not form two strictly distinguishable occupational groups. Groups of these labourers may be seen in the vicinity of the markets, shops and boat jetties in Ernakulam and Mattancherri towns and their suburbs hunting for work. In Ernakulam Kudumbi Chettis, Christians and Ezhavas are well represented in this group. In Mattancherri and Palluruthi Muslims form a strong contingent. The Kudumbi Chettis are robust workers, but they are often exclusive and make up cart teams mainly from among themselves. The other communities mix up together more often. Employment is not regular for this class of labourers, though the condition of the hand-cart man is better than that of the head-load worker. The minimum consolidated daily wage prescribed for head-load workers by the Government is Rs. 2.20 in the case of men, Rs. 1.65 in the case of women and Rs. 1.38 in the case of adolescents. The Head and Cart Load Workers' Union, Ernakulam, is a notable organisation of the workers in this field.

The sawyers form another miscellaneous occupational group, though much of the heavy work is now a days done by sawing machines. Some of the sawyers contact the business men, house builders, furniture makers etc. directly and are engaged by them. They are also sometimes recruited by a 'Moopan' or contractor to do sawing work in a factory or builder's yard. They are usually paid wages on the basis of the quantity of work turned out. Sawing is done by teams of two each. The minimum consolidated daily wage prescribed for a sawyer under the Minimum Wages Act (1948) is Rs. 3.58. Compared to some other classes of labourers the sawyers in the District get regular employment.

The boat crew labourers form another important occupational group as the District has always had a fairly heavy boat traffic. Some of them are engaged in country boats or *valloms* and their work is to push the *vallom* from place to place with long bamboo poles. Others in this category are engaged as drivers, serangs, boat masters, lascars etc. in motor boats. There are also other labourers working in the boat jetties to help the passengers with luggages or in loading and unloading the boats like the porters in Railway Stations. Under the Minimum Wages Act (1948), Government have fixed Rs. 35 as basic pay and Rs. 25 as dearness allowance for the Driver, Serang and Boat master and Rs. 20 and Rs. 22 for Lascars. In addition, they also get 3 paise per running hour as batta and over-time rates for all works done exceeding 16 hours in a 48 hour period. At the same time the minimum wage fixed for a boat loading worker is Rs. 2.20 in the case of men, Rs. 1.65 in the case of women and Rs. 1.38 in the case of adolescents. The Motor Boat Workers' Union, Ernakulam and the Motor Boat Workers Association, Ernakulam are organisations of workers employed in the motor boat industry.

Dock workers who load and unload steamers etc. form another important occupational class of the District. They are engaged in shifts for all the 24 hours of the day. They attend to the loading or unloading work in the Cochin Port. The work of loading and unloading of steamers is strenuous and continuous and hence workers of this class are generally of the age group 20 to 50. Almost all the dock workers are residents in Mattancherri and suburbs. The Christian labourers in this group belong mostly to the Latin Catholic community. In addition to the dock workers, there are the regular Port Employees who attend to duties which are considerably varied in character and are connected with the regular work at the Cochin Port and the implementation of the Port Development schemes. The Dock workers and other Port employees together number about 15,000. The Cochin Thuramugha Thozhilali Union, Mattancherri, Akhila Kerala Navika Thozhilali Union, Mattancherri, Cochin Port Employees, Union, Ernakulam, etc. are some of the notable unions of employees in this field.

CHAPTER IX

ECONOMIC TRENDS

In the Census of 1961 the general population has been broadly divided into two classes, viz., workers and non-workers. In the Ernakulam District 617,283 (437,902 males and 179,381 females) constitute workers and 1,242,630 persons (493,346 males and 749,284 females) constitute non-workers. It may be noted that while 33.31 per cent of the total pupolation of Kerala constitute workers, 33.19 per cent of the total population of Ernakulam District constitute workers. As for non-workers, the percentages are 66.69 and 66.81 for Kerala State and Ernakulam District respectively. Table I gives the total number and percentage of workers engaged in the various industrial categories as well as of non-workers as per the 1961 Census.

TABLE I

Classification of Industrial Workers

	Industrial category	Total	Males	Females	Percentage of total population
	Population	**1,859,913**	**931,248**	**928,665**	**100.00**
	Total workers	617,283	437,902	179,381	33.29
1	As Cultivator	126,789	89,910	36,879	6.82
2	As Agricultural Labourer	86,773	39,932	46,841	4.67
3	In Mining, Quarrying, Livestock, Foresury, Fishing, Hunting and Plantations, Orchards and Allied activities	39,325	35,586	3,739	2.11
4	At Household Industry	48,425	20,536	27,886	2.60
5	In Manufacturing other than Household Industry	68,831	56,213	12,618	3.70
6	In Construction	11,050	10,584	466	0.59
7	In Trade and Commerce	39,483	36,699	2,784	2.12
8	In Transport, Storage and Communications	28,751	27,563	1,188	1.55
9	In other Services	167,856	120,876	46,980	9.03
	Non-Workers	1,242,630	493,346	749,284	66.81

Table II gives the Taluk-wise figures of classification of population in workers and non-workers in the District as per the Census of 1961.

TABLE II

Classification of Population into Workers and Non-Workers

Taluk	Total Rural/ Urban/	Workers		Non-Workers	
		Males	Females	Males	Females
Parur	Total	49,277	17,934	60,119	93,853
	Rural	44,969	16,741	54,291	84,830
	Urban	3,308	1,193	5,828	9,523
Alwaye	Total	54,459	30,431	58,619	83,036
	Rural	49,275	29,357	52,674	74,376
	Urban	5,184	1,074	5,945	8,660
Kunnathunad	Total	55,301	33,163	58,630	82,188
	Rural	51,353	32,227	54,225	75,330
	Urban	3,948	936	4,405	6,858
Kanayannur	Total	86,953	29,623	1,04,107	159,268
	Rural	50,046	21,550	58,492	87,789
	Urban	36,907	8,703	45,615	71,479
Cochin	Total	75,220	21,940	83,417	1,33,400
	Rural	37,370	15,362	45,185	70,190
	Urban	37,850	6,578	38,232	63,210
Moovattupuzha	Total	73,109	34,273	77,522	1,16,719
	Rural	66,179	32,346	69,348	1,04,246
	Urban	6,930	1,927	8,174	12,473
Thodupuzha (No urban area)	Rural	43,583	12,017	50,932	80,820

PRICES AND WAGES

A study of the general level of prices and wages is essential for a proper understanding of the general economic condition of a people. The prices of agricultural commodities rose steadily in this District as elsewhere in the country in the latter half of the 19th century. Logan's *Malabar Manual* gives us detailed information regarding the prices of some of the essential commodities like rice, gingelly seed, coconuts and arecanuts at Cochin for the period 1860 to 1880. The relevant price statistics taken from Logan are given in Tables A, B, and C at Appendix I to this Chapter. With the turn of this century the price level showed a further upward trend. It gradually rose much higher than what it was in the preceding century. This had a favourable effect on the general economic condition of the people

of the District. During the First World War and after the upward trends in the price situation were accentuated and prices of almost all agricultural commodities rose faster than ever before. The *Malabar District Gazetteer* gives us the prices of such commodities as rice, paddy and salt at Cochin for the period from 1916-17 to 1930-31. The tables given at Appendix II to this Chapter give the price in seers per Rupee for each of the commodities at Cochin. It may be seen from the tables that the general price level was steadily going up during the war and post-war periods. The economic depression of the early thirties which stifled economic growth throughout the world hit this District also. With effect from 1929 there was a steep fall in commodity prices which hit the agricultural population extremely hard. The tables at Appendix II will also convey an idea of this heavy fall in agricultural prices since 1929. This fall in agricultural prices was not accompanied by a corresponding fall in the cost of agricultural production. The problem of agricultural indebtedness arose in an acute form. Most of the cultivators lost their holdings to the creditors. Government had to step in and introduce various measures in order to give relief to the agriculturists from the crushing burden of debt.

In the meantime, the Second World War broke out in 1939 and arrested the deteriorating economic condition. In the exigencies of the war there was a steady rise in the general level of prices in the forties. In 1950-51 just before the commencement of the First Five Year Plan there was a further increase in food prices in the wake of the Korean war boom. The cease-fire in Korea, improvement in the world production of wheat and rice and better crop conditions in the country brought about a general decline in the prices in 1952-53.

The year 1953-54 and the succeeding years witnessed a progressive rise in prices[1]. This was largely due to the investment policy of the Government which envisages a large quantum of resources for investment which we do not actually possess yet. Such investments are financed through budget deficits. The method of financing the Plan largely through public borrowings and foreign loans

1 The analysis of the causes of price rise given here is based on a Note on the Price Movements in Kerala prepared by the Bureau of Economic Studies in November 1962.

has also indirectly accentuated the inflationary trends. The scarcity of foreign exchange available has at the same time slowed down the tempo of industrial activity through the short supply of raw materials, spare parts and import content of replacements etc. This too is inflationary through its adverse effect on the production of consumer goods etc. Another reason for the annual increase in the level of prices is the scanty growth in the output of agricultural commodities, especially of cereals and pulses. Agricultural production has fallen much short of the proposed targets mainly on account of seasonal factors. The price movements in Kerala in recent years have been influenced to a great extent by forces operating all over India. The growth of population, rise in the income of consumers and rise in the cost of production and transport charges have considerably accelerated the price rise of commodities. Besides, there are also other factors which have acted unfavourably upon the function of price in the State. For example, in the case of rice, onions and sugar, shortages in internal production, inadequate import from other States and large scale speculative hoarding have accentuated the level of prices in the State. The Sales Tax imposed on rice in 1961-62 also slightly influenced the price rise. The price rise in Kerala in general during the decade 1951-52 to 1961-62 in respect of select commodities is shown in the table at Appendix III.

The working class cost of living index numbers also give a general indication of the variations in price level. Table III shows that the cost of living indices in Alwaye and Ernakulam have followed an increasing trend in recent years.

TABLE III

Working Class Cost of Living Index Numbers

Centre	Base 1939	1959	1960	1961	1962	1963
Alwaye	100	482	462	479	488	511
Ernakulam	100	450	463	493	489	517

Apart from the general price level as measured by the cost of living index numbers, the price situation may be explained also with reference to the price trends of specific commodities like rice, tapioca, sugar, etc. Rice is the most important food crop of Kerala and its price trend

therefore deserves special treatment. The price of rice did not show any significant change during the years 1951-52 to 1953-54. This was due to the control of foodgrains which was enforced since 1952. The control was lifted in July 1954 and there was a slight fall in price resulting from the arrival of hoarded stocks into the market. The fall in the all-India production during the year 1954-55 and 1957-58, however, led to a marked increase in price from 1956-57 onwards. The irregular and insufficient supply from outside the State also accelerated the price rise. To control the price rise, fair price shops were opened by the Government for the distribution of limited quantities of rice to persons in the low income group. This helped to keep the price of rice much lower in the open market than otherwise it would have been. Table IV shows the wholesale price of rice per quintal at Cochin for certain select months in 1961, 1962 and 1963.

TABLE IV

Wholesale Price of Rice per quintal at Cochin for select months of 1961, 1962 & 1963

Month	1961 Rs.	1962 Rs.	1963 Rs.
January	55.12	69.34	61.23
April	62.58	62.09	58.79
July	66.80	64.39	60.65
October	68.04	62.01	64.47
November	67.02	63.96	67.56
December	66.68	62.16	70.09

It may be seen from the table that the price of rice has been showing a general upward trend in recent years with irregular ups and downs during certain months of the year. The price situation of rice in Kerala is, to a large extent, determined by the price levels in the two important markets of Andhra Pradesh and Madras from where Kerala purchases rice.

Sugar is another essential article the price of which deserves some attention. Sugar price has shown a tendency to rise since 1956-57. There was an excessive rise in 1959-60 which may be explained mainly by the fall in the availability of sugar brought about by a decline in the all-India production of sugar in 1959, reduction in stocks and increased exports which provoked intensive speculative activities

on the part of the sugar dealers. This grave situation was brought under control in 1960 by distributing limited quantities of sugar through fair price shops on a slab basis according to the income of families. The prices remained more or less steady in 1960-61 as the Central Government continued their policy of controlled movement of sugar. In 1961-62 most of the distribution and price controls of sugar were abolished by the Central Government, the control over releases from factories alone being retained. As a result the price of sugar dropped in 1961-62.

Retail prices of some other essential commodities like tapioca, firewood, coconut, coconut oil, cloth, etc. have shown fluctuations in recent years. Table No. V gives the retail prices of some of these commodities at Ernakulam and Alwaye for certain select years such as 1939, 1956, 1961 and 1963.

TABLE—V

Retail Prices at Ernakulam and Alwaye in 1939, 1956, 1961 and 1963

	Commodity	Unit	August 1939	August 1956	August 1961	August 1963
	A Ernakulam					
1	Rice	kg.	0.11	0.57	0.75	0.67
2	Chillies	„	0.55	2.51	2.45	3.13
3	Corriander	„	0.22	1.06	1.19	0.94
4	Onions	„	0.07	0.18	0.22	0.27
5	Salt	„	0.09	0.11	0.10	0.09
6	Tapioca	„	0.04	0.13	0.17	0.15
7	Greengram	„	0.18	0.62	0.86	0.96
8	Black gram	„	0.18	0.82	0.75	0.90
9	Mutton	„	0.55	2.21	3.25	3.25
10	Fish	„	0.20	1.10	0.59	1.47
11	Milk (Cows)	Litre	0.18	0.73	0.79	1.08
12	Tea	kg.	0.97	4.96	6.25	5.69
13	Sugar	„	0.31	0.97	1.30	1.22
14	Coconut Oil	Litre	0.21	1.28	2.20	2.66
15	Coconut	100 Nos.	2.08	14.31	22.50	25.50
16	Kerosene	Litre	0.18	0.34	0.37	0.38
17	Firewood	M.T.	7.87	43.06	45.72	40.64
18	Arecanut	100 Nos.	0.36	2.62	2.89	2.51
19	Tobacco (ordinary)	kg.	0.97	5.09	3.90V	6.00

V=Variety Change.

	Commodity	Unit	August 1939	August 1956	August 1961	August 1963
	B ALWAYE					
1	Rice	kg.	0.11	0.56	0.76	0.68
2	Chillies	"	0.53	2.47	2.55	3.00
3	Corriander	"	0.22	0.97	1.17	1.00
4	Onions	"	0.07	0.26	0.25	0.28
5	Salt	"	0.09	0.11	0.09	0.09
6	Tapioca	"	0.04	0.15	0.11	0.12
7	Greengram	"	0.15	0.55	0.85	0.90
8	Black gram	"	0.13	0.62	0.75	0.95
9	Mutton	"	0.55	2.21	3.50	3.50
10	Fish	"	0.22	0.86	0.48	0.73
11	Milk (Cows)	Litre	0.16	0.73	0.75	0.90
12	Tea	k.g.	0.97	6.20	6.50	6.90
13	Sugar	"	0.33	0.99	1.35	1.24
14	Coconut oil	Litre	0.23	1.36	2.36	2.71
15	Coconut	100 Nos.	2.75	18.06	26.00	28.40
16	Kerosene	Litre	0.10	0.32	0.39	0.50
17	Firewood	M.T.	6.64	27.68	24.13	30.48
18	Arecanut	100 Nos.	0.39	2.69	3.38	3.00
19	Tobacco (ordinary)	kg.	0.97	4.59	5.25	5.75

We may also consider the price trends of some select commodities like tea, pepper and ginger which are important foreign exchange earners of the country. Since 1958-59 the price of tea recorded a steady increase. Till then it fluctuated as a result of changes in the volume of production and foreign buying. In 1959-60 there was a definite rise of price over the previous year. This was mainly due to a shortage in the supply relative to demand caused by a fall in the production of South Indian tea. The increasing trend continued till the end of1961-62 as a result of increased foreign buying, decline in the production of North India tea during 1959-60 and increased internal consumption.

The price of pepper followed a downward trend after the Korean war boom. This caused a fall in production. The main reason for the fall in production and price was the reduced off-take by the traditional buyers like the United Kingdom and U. S. A. However, by the middle of 1958 the falling trend in price was temporarily arrested. The main contributory factors for the rise in price in 1958-59 were short fall and damage in the production of other competing countries, fresh purchases from the Communist countries of Eastern Europe and renewed enquiries from U. S. A. Unbridled speculative activities caused further

unreasonable rise in price in 1959-60 and 1960-61 and reduced the chances of export expansion. This led to a fall in the price in 1961-62. Price of pepper in the Cochin market which was Rs. 408 per quintal in January 1961 came down to Rs. 304 in January 1962 and to Rs. 257 in December 1962.

The price of ginger has shown varied fluctuations. During the decade 1951 to 1961 there has often been a decline in the price of this commodity mainly due to the fall in the volume of export. The main factors for the decline in export were import restrictions from the West Asian countries, increasing competition from other producing countries and change in consumers' preference. The Suez Crisis adversely affected the ginger trade, particularly with the Middle East and resulted in a series of set-backs in 1957-58. The year 1959-60 witnessed a rise in the price mainly due to a shortage in supply relative to demand. Thereafter, the prices fluctuated along with the changes in demand and competition from other producing countries.

Table VI gives the wholeasle price of some select commodities at Cochin centre during the years 1960-63.

TABLE VI

Wholesale Prices of some select commodities at Cochin, 1960—63

	Commodity	Variety	Price per quintal (Rs.) 1960	1961	1962	1963
1	Rice *	Chempala	61.48	66.19	63.51	62.92
2	Coconut oil	Mill	299.73	234.01	260.51	277.47
3	Coconut oil cake	Mill	42.19	40.77	49.24	51.15
4	Coir	Parur Yarn thin	80.89	108.08	106.43	103.67
5	Pepper	Ungarbled	509.84	378.56	294.34	273.62
6	Ginger	Dry	161.24	129.28	172.88	259.87
7	Turmuric	Alleppey	105.59	125.56	143.62	150.80
8	Lemongrass oil	80 Central	1,689.19	2,224.07	2,303.93	1,485.50

* The prices given for Rice relate to Ernakulam Centre.

The *Economic Review, Kerala*, 1963 makes the following observations about the price trends of the above commodities during the year 1963. "The upward trend in the prices of these commodities continued in 1963 also except in the case of pepper, coir, arecanut and lemongrass oil. The downward move in the prices of pepper which continued in 1962 was nearly arrested in 1963, though the average for the year was lower than in 1962. Inactive foreign demand continues to be the main factor contributing to the dullness of the market. Pepper price at Cochin market which ruled at Rs. 252.75 in January 1963 rose to Rs. 279.63 in April but the trend was reversed in the subsequent months to reach a level of Rs.. 266.13 in June 1963. By about October of the year, price per quintal rose again to Rs. 295 but declined to a level of Rs. 272.50 by the year end. The ginger market continued to be active during the year and maximum price of Rs. 331.00 per quintal for the year was secured in August 1963. Turmeric prices advanced with some hesitancy to Rs. 175 per quintal in May 1963 but hereafter, it remained at a lower level around Rs. 145 per quintal. Arecanut prices were on the decline for the major part of the year. Average price of lemongrass oil for 1963 was about 38 per cent lower than in 1962. Starting from a level of Rs. 1850 per quintal in January 1963 the price of lemongrass oil declined to Rs. 1187.50 per quintal in June. Thereafter prices rose and fluctuated around Rs. 1375. Prices of coir yarn—Parur (thin)—at Cochin moved irregularly during the year and the average for the year was lower than that for 1962. Prices of coconut and coconut products remained higher in 1963 than in 1962. Prices of rice, both of imported and indigenous varieties, showed a declining trend upto the end of March 1963 but went up thereafter reaching a maximum in December. Thus it can be concluded that the situation with respect to prices and cost of living in 1963 was one causing concern."[1]

Wages

The fluctuations in the price level generally influence the level of wages. The level of wages of the workers employed both in agriculture and industry has gone up

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1 *An Economic Review, Kerala* 1963. pp. 169 and 172

steadily along with the increase in the price level. Till the middle of the 19th century the wages of agricultural labourers were miserably low. But by about 1860 there was an improvement in the worker's wages. Table VII gives the daily wages of agricultural labourers at Moovattupuzha, Thodupuzha, Kunnathunad, Alangad and Parur during the period 1880-95.

TABLE VII

Daily Wages paid to Agricultural Labourers

Taluk	1880-85 As.	1880-85 Ps.	1885-90 As.	1885-90 Ps.	1890-95 As.	1890-95 Ps.
Moovattupuzha	2	0	3	0	4	0
Thodupuzha	2	0	3	0	4	0
Kunnathunad	2	4	3	5	4	0
Alangad	2	10	3	0	4	0
Parur	2	10	3	5	4	0

The position of the artisans was slightly better. Unlike agricultural labourers, they used to get slightly higher wages. Moreover, whereas agricultural labourers were paid mainly in kind—usually paddy, the artisans were paid their wages mainly in cash. But, in course of time, agricultural labourers began to demand payment of wages in cash and the Government had to accede to the demand. The war years 1914 to 1918 saw a rise in the worker's wages. Table VIII gives the wages in money paid to artisans in erstwhile Cochin State in 1917.

TABLE VIII

Daily Wages paid to Artisans in Cochin State in 1917

Workers	Minimum As.	Minimum Ps.	Maximum As.	Maximum Ps.	Maximum in villages As.	Maximum in villages Ps.
Carpenters	0	6	1	0	0	8
Blacksmiths	0	6	0	12	0	8
Masons	0	6	0	14	0	8
Bricklayers	0	7	0	12	0	8
Coolies—					piece worker	
Male	0	4	0	10	0	6
Female	0	3	0	6	0	3
Boys	0	2	0	4	0	2

The great economic depression of the early thirties brought about a steep fall in the wage level. Nevertheless, in the forties the wage level again showed an upward trend

as a result of the conditions created by the outbreak of the Second World War and the rise of the trade union movement. The wages of both agricultural and industrial workers increased considerably.

Agriculture is the main occupation of the rural folk of the District and agricultural labourers, therefore, form an important segment of the working population. According to the Census of 1961 there are 86,773 agricultural labourers in this District. They are engaged mainly in agricultural operations connected with paddy, coconut, tapioca etc., which are the main agricultural crops grown in the District. Most of the agricultural workers live in small huts built in the plots belonging to big landlords. The family of an agricultural labourer consists ordinarily of 4 to 8 members. Very often the agricultural labourers are put to difficulties arising from want of work throughout the year. This is because agricultural operations are seasonal. The general standard of living of the agricultural labourers is also very much lower than that of the industrial workers. Taking all factors into consideration, Government have fixed the minimum rates of wages payable to the different classes of employees engaged in agricultural operations under the Minimum Wages Act (1948). The schedule of wages is given below.

A Minimum time rates for an eight hour day	
1 Ordinary Agricultural operation	
1 Men	Rs. 1.50
2 Women	Re. 1.00
2 Preparing pits of bunds for planting coconuts (excepting in sandy tracts)	Rs. 1.62
3 Digging or ploughing and preparing mounds, ridges or basins for tapioca or sugar cultivation (excepting in sandy tracts)	Rs. 1.62
B. Minimum piece-rates for plucking of coconuts Per coconut tree	Re. 0.04 plus one coconut for every 25 trees or part thereof.
C Ploughing	
1 Ploughing with labourer's bullocks	Rs. 2.75 for a four hour working day
2 " Cultivators' bullocks	Rs. 1.50 for a four hour working day

3 Transplanting operations	The minimum wages shall be the same as for any ordinary labour but the working hours shall be five for *Kayal* areas and six for other areas.

N.B.— The hours for work fixed above are hours of actual work (i.e., excluding time spent in assembling, proceeding to the work-spot and returning, rest periods etc.)

4 Harvesting and threshing	1/9 of the paddy in addition to the customary payment called '*therpu*' or '*Vellamkudi*'. Workers shall be entitled to remuneration for carrying 'Katta' if threshing ground is not provided at the rate of one for every 2,000 paras of paddy field.

D If the existing rates for all or any of the above Agricultural operations are higher than the rates notified above, the higher rates will continue to be paid.

A statement showing the approximate number of workers, prevailing rates of wages and the average earnings of each category of workers in the different areas in this District in 1963 on the basis of local assessment is also given below.

1 **Ernakulam area**

Nomenclature of Work	Rate of wages Rs.	Average earning Rs.
Tilling	3 to 3.50	3
Sowing	3 to 3.50	3
Replanting	1.50	1.50
Weeding	1.50	1.50
Harvesting	1/8 of the threshed paddy	3
Miscellaneous work	2.75 to 3	2.75
Coconut plucking	4 (for 100 trees)	4.75

A total number of 6,600 workers are engaged in the above mentioned operations.

2 **Parur area**

Nomenclature of Work	Rate of wages	Average earning Rs.
Harvesting	1/9 of the threshed paddy	2.75
Toddy-tapping	17 Ps. per bottle	3.50

Nearly 12,000 workers are engaged in the different agricultural operations in this area.

3 Alwaye area

Nomenclature of work	Rate of wages	Average earning Rs.
Transplanting and weeding	Rs. 1 to 1.50	1.25
Ploughing	Rs. 2.25 to 2.50	2.50
Harvesting	1/9 of the paddy threshed	3.00
Work connected with coconut and arecanut plantations	Rs. 2 to 2.50	2.25

Nearly 2,000 workers are engaged in agricultural operations in this area.

4 Cochin area

Nomenclature of work		Rate of wages Rs.
Ploughing		3.50
Harvesting		1.50
Coconut plucking		4.00
Head Load workers	1 Men	2.50
	2 Women	1.25

About 1,200 workers are engaged in agricultural operations in this area.

5 Thodupuzha area

Nomenclature of work	Rate of wages	Average monthly Income
Agricultural Labour	Rs. 1.8 to 2	Rs. 45

Nearly 2,000 workers are engaged in agricultural operations in this area.

Here mention may be made of the fact that the Government of India have selected two villages in this District, viz., Cheranallur and Vengur for regular collection of data on rural wages. A statement of rural wages for these centres for the period 1961-63 is given in Table IX.

As far as industrial and other non-agricultural workers are concerned, it may be noted that minimum rates of wages have been fixed by Government for different categories among them under the provisions of the Minimum Wages Act 1948. Table X contains a statement of the minimum wages for certain categories.

TABLE

Agricultural Wages in Rupees in

Name of Centre	Months	Carpenter 1961	1962	1963
Cheranallur	January	N.A.	3.50	4.00
	February	N.A.	3.50	4.00
	March	N.A.	3.50	4.00
	April	N.A.	3.50	4.00
	May	N.A.	3.50	4.00
	June	N.A.	3.50	4.00
	July	N.A.	3.50	4.00
	August	N.A.	3.50	4.00
	September	3.50	4.00	4.00
	October	..	4.00	4.00
	November	3.50	4.00	4.00
	December	3.50	4.00	4.00
Vengur	January	..	3.50	4.00
	February	..	3.50	4.00
	March	..	3.50	4.00
	April	3.00	3.50	4.00
	May	3.00	..	4.00
	June	3.00	4.00	4.00
	July	3.25	4.00	4.00
	August	3.25	4.00	4.00
	September		4.00	4.00
	October	..	4.00	4.00
	November	3.25	4.00	4.00
	December	3.25	4.00	4.00

IX

Cheranallur and Vengur in 1961-63

Mason			Field Labour		
1961	1962	1963	1961	1962	1963
..	3.50	4.50	..	3.00	3.00
..	3.50	4.50	..	3.25	3.00
	3.50	4.50	..	3.50	3.00
..	3.50	4.50	..	3.50	3.75
..	3.50	4.50	..	3.50	3.99
..	3.50	4.50	..	3.00	3.99
	3.50	4.50	..	2.75	3.99
..	3.50	4.00	..	2.75	3.99
3.50	4.50	4.50	3.00	3.00	3.99
..	4.50	4.50	..	3.00	3.99
3.50	4.50	4.50	2.50	3.00	3.99
3.50	3.50	4.50	2.50	3.00	3.00
..	3.50	4.00	..	2.37	2.50
..	3.50	4.00	..	2.37	2.50
..	3.50	4.00	..	2.37	2.50
3.00	3.50	4.00	2.25	2.37	2.50
3.00	4.00	4.00	2.25	..	2.50
3.00	4.00	4.00	2.25	2.00	2.50
3.25	4.00	4.00	2.25	2.00	2.50
3.25	4.00	4.00	2.25	..	2.50
..	4.00	4.00	..	2.50	2.50
..	4.00	4.00	..	2.50	2.50
3.25	4.00	4.00	2.25	2.50	2.50
3.25	4.00	4.00	2.25	2.50	2.50

TABLE X

Minimum Wages in certain Scheduled Employments

	Nature of employment	Rates of wages
1	Cobbler (Skilled)	Rs. 2.8 per day
2	Engine driver in Rice Mill, Flour Mill or Dall Mill	Rs. 2 per day
3	Do. in Oil Mills	Rs. 2.50 per day
4	Scavengers in Panchayats	Rs. 42 per mensem
5	Beedi workers	Rs. 1.87 (for 1,000 beedies)
6	Field workers in Plantations	
	Men	Rs. 1.59 nP.
	Women	Rs. 1.22 nP.
	Children	Rs. 0.79 nP.
7	Field Workers in Plantations	
	Men	Rs. 1.81 nP.
	Women	Rs. 1.37 nP.
8	Toddy tappers	14 nP. per bottle in Moovattupuzha and Thodupuzha Taluks, 15 nP. per bottle in Parur, Kunnathunad and Alwaye Taluks and Cochin Taluk excluding Mattancherri range, 16 nP. per bottle in Kanayannur Taluk and 19 nP. per bottle in Mattancherri range.
9	Masons and Carpenters and Blacksmiths employed in Tile Industry	Rs. 1.75 nP.
10	Operator (Theatres)	Rs. 65 per mensem
11	Tailor	Rs. 50 „
12	Barber	Rs. 50 „
13	Cooks in Liquor and Toddy shops	Rs. 50 „
14	Washerman and Iron Worker (Laundries)	Rs. 45 „
15	Baker (Bakeries)	Rs. 45 „
16	Cook (Hotels)	Rs. 30 „
17	Cleaner (Hotels)	Rs. 20 „ and free food
18	Skilled Workers in Printing Presses	Rs. 45 per mensum

STANDARD OF LIVING AND FAMILY BUDGETS

Family Budget Survey (1944-45)

An enquiry into the family budgets of industrial workers in the Ernakulam area was held in 1944-45 under the orders of the erstwhile Government of Cochin. The report of the survey contains valuable information in regard to the earnings of the families of industrial workers, the mode

of expenditure on food, clothing, fuel and other necessaries and comforts, the degree of well-being enjoyed by the workers and adequacy or inadequacy of their wages to pay for the things needed for their families etc. The random sampling method was adopted for the survey. The number of family budgets in organised industries collected and studied in the Ernakulam Centre was 261 as shown in Table XI.

TABLE XI

Industry	Number of budgets
Total	**261**
Oil mills	125
Printing Presses	27
Oil Installations	30
Engineering Workshops	19
Harbour Workshops	60

This represented 10 per cent of the total number of families in organised industries eligible for the enquiry and could claim to be sufficiently representative. The main findings of the survey are summarised here. A general analysis of the budgets of labourers in organised industries showed that 57.86 per cent of the labourers belonged to the Christian community. The Christian workers were thus predominant in Ernakulam. In point of literacy it was seen that 79.29 per cent of the main wage-earners and the families in organised industries were literate. As regards the composition of the families, the average number of persons residing with the family was 6.69. In addition, there was also 0.09 per cent living away from the family but depending upon it for monetary help. Thus the economic responsibility of the principal wage-earner extended to 6.78 individuals. It was seen that the industrial worker in Ernakulam town had to support a much bigger family than his counterpart in most other cities of India. Another feature revealed by the analysis of family composition was that the size of the family increased with the income. There was a steady increase in the members from 4.94 for the income group less than Rs. 20 to 10.59 for the income group more than Rs. 50. There was also a regular rise in the average number gainfully employed as the family was larger. The average number of the adult males per family resulting from the application of the Lusk Scale of distribution of size and composition of families

was 5.56 for the 261 families of the Ernakulam Centre.[1] The table XII gives particulars of the average monthly income per family of all families of industrial workers in the Ernakulam Centre according to source.

TABLE XII

Average monthly income per family

	No. of families			
	Rs.	A.	P.	Per cent
Total income	**32**	**1**	**5**	**100.00**
Income from employment—				
Earnings of the principal wage earner	17	8	9	54.68
Others	8	0	5	25.01
Income from other sources—				
Land	1	12	7	5.57
House	2	5	5	7.29
Gifts and presents	..	..	..	..
Help from relatives	0	7	3	1.41
Others	1	15	0	6.04

The average income per family, taking all the 261 families into consideration, amounted to Rs. 32-1-5. Out of this 79.69 per cent was earned from employment and 20.31 per cent from other sources such as Land, House etc. The earnings of the main wage-earner alone amounted to 54.68 per cent to the total income. As regards the income from other sources, the only items which showed definite trend were incomes from land and houses. The income from land rose from 2.07 per cent in the lowest income group to 10.84 per cent in the highest income group except in the Rs. 40-50 group. The income from houses remained at a fairly constant percentage for all the income

1 For any true comparative study all materials must be reduced to the same denomination. Details of family budgets cannot be properly compared when the different family units consist of men and women, adults and children in different numbers and proportions. In two families of five members each, one may spend Rs. 20 for food out of an income of Rs. 30 and the other Rs. 25 out of Rs. 30. This may be considered strange till we know that the first is a family of two adults with three children and the second of five adults. Therefore it is usual in the case of budget enquiries to reduce the data for families in different ranges and compositions in terms of a common unit namely "the equivalent adult male". Different scales can be used for this process of reduction. In this enquiry the Lusk Scale worked out by Prof. Lusk of the Medical School, Cornell, United States, calculating the physiological requirements of food of people of different ages and sexes has been adopted. According to this scale the adult male is unity, the adult woman is 0.83, a child between 10 and 14 is also 0.83, between 6 and 10 is 0.70, and below 6 is 0.50. All above 14 years of age are regarded as adult men or women.

groups except the second highest where it dropped. Table XIII gives the average incomes per equivalent adult male in the families falling under each income group.

TABLE XIII

Average Income per equivalent adult male in each Income Group

Income group	Average income per family			Average No. of equivalent adult males per family	Average income per equivalent adult male		
	Rs.	A.	P.		Rs.	A.	P.
	32	1	5	5.56	5	12	4
Rs. 10 and below	..	..	..	..	..	..	..
Over Rs. 10 to Rs. 20	16	9	8	4.02	4	2	1
Over Rs. 20 to Rs. 30	25	7	6	5.05	5	0	8
Over Rs. 30 to Rs. 40	34	3	2	5.67	6	0	6
Over Rs. 40 to Rs. 50	45	0	3	7.97	5	10	4
Over Rs. 50	67	1	2	8.82	7	9	8

It may be noticed from the above table that the higher income had generally to support a larger family, and very often an average family in a higher income group was, when account was taken of the number of members to be supported, poorer than an average family in a lower income group with only fewer members to support. Thus the average income per equivalent adult male in a family in the income group of Rs. 40·50 in Ernakulam was really less than that of the families in the income group above them, even though it might appear from the average income per family in the former group that it was more prosperous than the latter. The effect of the size of the families in estimating the relative prosperity of families in the different income groups is thus very striking. In Ernakulam town the average expenditure per family came to Rs. 34-6-0 against an average income of Rs. 32-1-5. Thus the budget per family of all the families of the industrial workers taken up for investigation showed a deficit of Rs. 2-2-1. This deficit was generally financed by small borrowings from labourers, by getting an accommodation from the shops which supply the daily needs of the families and in a few cases by borrowings from money-lenders.

On a scrutiny of expenditure it would be found that a worker's family incurred expenses broadly under the following groups, viz., food, fuel and lighting, clothing, rent and miscellaneous. Table No. XIV gives the average monthly expenditure incurred per family by the families of the workers in Ernakulam town.

TABLE XIV

Average monthly expenditure on different items

Item	Rs.	A.	P.	Percentage to total
Total	34	3	6	100.00
Food	21	15	8	64.23
Housing	3	6	3	9.91
Clothing	2	1	0	6.03
Fuel and lighting	2	3	10	6.54
Miscellaneous	4	8	9	13.29

It may be noticed that among the several items of family expenditure the most important was food. It will be interesting to know the details of the food budget of the families of the industrial workers. Cereals and pulses claimed 35.76% of the total expenditure on food, vegetables 10.71%, meat, mutton and fish 12.91%, milk 3.18%, ghee and oils 4.55%, condiments 4.69%, salt 0.92%, sugar and jaggery 3.15%, coffee and tea 1.69%, liquor 4.62%, smoking and chewing 3.77% and refreshments, pansupari and other foods 14.05%. A detailed statement of the particulars of the food expenditure per family and per equivalent adult male in Ernakulam town is given at Appendix IV to this Chapter.

A characteristic feature of the family budget was the very high proportion of expenditure given to cereals. The most important item of expenditure which dominated the whole budget was rice which accounted for 34.31 per cent. It was also noted as a peculiarity of the food budget of the workers in the Ernakulam Centre that relatively higher expenditure was incurred on fish and mutton than in the Trichur town where too a similar survey was undertaken simultaneously. The worker in the Ernakulam town was seen taking in more nutritive diet than his counterpart in the Trichur town. The comparison of the percentages of expenditure on food also proved the principle of Engel's Law that as the income increases there is the tendency

of the percentage of expenditure on the more essential foodstuffs like cereals and pulses to decrease.

In the family budget of industrial workers the important item next to food from the standpoint of the percentage of expenditure was the miscellaneous group. The expenditure on this group accounted for 13.29%. The items comprised in this group and the average monthly expenditure incurred on them by all the families of industrial workers in Ernakulam are given in Table XV.

TABLE XV

Average monthly expenditure incurred on different Items

Item	Average monthly expenditure for all families		
	Rs.	A.	nP.
Total	4	8	9
Education	0	7	3
Dhobi or washing soap	0	8	3
Barber	0	7	2
Travelling to and from place of work	0	4	7
Medical charges	0	5	11
Religious observances, feasts and festivals	0	13	0
Amusements	0	4	2
Payment to Provident Fund, kuries, etc.	0	13	7
Repayment of debts	0	7	10
Remittance to dependents living elsewhere	0	1	0
Servant's pay		..	..

The survey revealed that almost all families had incurred expenditure on religious observances, feasts etc., 57.85 per cent of the families spent for education, 54.79 per cent spent towards payment to *kuries*, provident fund etc., and 2.68 per cent contributed towards the upkeep of their dependents living outside. Indulgence in amusements was not uncommon among the working classes. The most common form of amusement was the cinema and no less than 86.59% of the families showed expenditure on this item.

The next important item of expenditure in the family budget of industrial workers was housing. It took in 9.91 per cent of the total expenditure. This percentage was, however, much less than the percentage in Trichur town. This was because 230 families out of the 261 surveyed owned their own houses and only 30 or 11.49% of the total lived

in rented houses. Nevertheless, the housing conditions of the industrial workers were far from satisfactory.

Clothing was the next important item of expenditure in the family budget of industrial workers. It took in 6.03 per cent of the total expenditure. The use of white linen by the working class in preference to coloured fabrics involved frequent washing and consequently less durability for clothes and this entailed greater expenditure on clothing.

The expenditure of 6.25% on fuel and lighting was normal.

Cost of Living Index Surveys (1946 and 1951)

A family budget survey was conducted in June 1946 by the Bureau of Statistics, Travancore University, on behalf of the Travancore Government in seven selected towns of erstwhile Travancore State in order to collect essential data for the periodical compilation of the cost of living indices. Alwaye in this District was one of the towns covered by the survey. A similar survey was undertaken by the same body in a few more selected centres in 1951. The centres covered by the new survey in Ernakulam District were Moovattupuzha and Perumbavur. The surveys were conducted with special reference to the following economic aspects of the life of the people, viz., (1) distribution of families in broad expenditure groups, (monthly) (2) composition of the family (3) family budgets (4) prices of commodities and average quantities of articles consumed per month in the family and (5) construction of the cost of living index.

Though enumeration of the total income was made for each family, it was realised that in most cases the returns were not reliable. The most important cause of the inaccuracies in income returns was the tendency to exclude incomes derived from abnormal sources such as black-marketing. private earnings not permitted by the employers etc., etc. A classification of families in the economic groups on the basis of income was therefore not considered desirable. At the same time returns relating to expenditure were found to be more reliable and therefore a division of the families in the economic strata was made according to the monthly expenditure in the family. Table XVI gives the percentage distribution of the families according to the total monthly expenditure.

TABLE XVI

Percentage distribution of the families according to the expenditure groups

Centre	Total No. of families	Expenditure in rupees per month: Less than 50	50 to 100	100 to 150	150 to 250	250 to 350	350 to 500	Average
Alwaye	2,416	6	43	29	16	4	2	128
Moovattupuzha	1,001	4	31	33	24	6	2	141
Perumbavur	927	13	41	23	17	4	2	119

It may be seen that in all the three centres families with an expenditure above Rs. 250 formed only a very small percentage. The largest number of families came within the expenditure groups Rs. 50-100, Rs. 100-150 and Rs. 150-250.

As the standard of living of a family depends to some extent on its composition it would be interesting to have an idea of the average size of the family expressed in terms of adult equivalents in broad expenditure groups in respect of each of the three centres. Table XVII conveys this information.

TABLE XVII

Average size of family in terms of adult equivalents in broad expenditure groups

Centre	Expenditure in rupees per month: Below Rs. 50	50 to 100	100 to 150	150 to 250	250 to 350	350 to 500	Average size
Alwaye	2.68	4.12	5.45	6.30	7.78	8.77	5.01
Moovattupuzha	2.84	3.83	5.27	6.01	6.55	7.04	5.02
Perumbavur	2.97	4.38	5.27	6.64	6.49	7.40	4.93

It is significant that the average size of the family showed a tendency to increase along with the increase in total expenditure in respect of all the three centres. The tables in Appendix V give details of the family expenditure under major items for the respective expenditure groups in all the three centres.

Table XVIII gives the percentage distribution of total expenditure in the three centres in broad expenditure groups according to the items of expenditure.

TABLE XVIII

Percentage distribution of the total expenditure according to the items of expenditure

Centre	Expenditure group	Items of expenditure: Food	Clothing	Housing Light Fuel	Pansupari Recreation Medical Education	Miscellaneous
Alwaye	Below Rs.50	64.7	6.1	10.3	7.4	11.5
	50-100	63.1	7.2	11.7	6.4	11.6
	100-150	63.1	6.0	12.3	6.0	12.6
	150-250	61.8	6.2	13.2	4.9	13.9
	250-350	58.0	6.8	13.3	4.6	17.3
	350-500	54.1	6.5	16.5	5.6	17.3
Moovattupuzha	Below Rs.50	67.0	5.9	13.1	6.0	8.0
	50-100	69.2	6.0	12.8	4.2	7.8
	100-150	68.0	7.4	12.7	4.1	7.8
	150-250	64.9	7.6	12.5	3.4	11.6
	250-350	62.3	7.7	11.7	3.3	15.0
	350-500	67.5	7.3	9.9	3.8	11.5
Perumbavur	Below Rs.50	69.1	3.5	12.9	5.0	9.5
	50-100	67.6	3.7	13.9	3.9	10.9
	100-150	66.5	4.6	13.8	3.1	12.0
	150-250	62.2	5.6	14.5	2.7	15.0
	250-350	57.8	6.4	15.4	2.0	18.4
	350-500	54.3	7.3	14.6	2.3	21.5

The tables given at Appendix VI give the average quantities of the various commodities consumed per month in the family according to the expenditure groups in all the centres.

Table XIX gives the cost of living index for the period June 1946 for Alwaye and for February 1951 for Perumbavur and Moovattupuzha in respect of the respective expenditure groups.

TABLE XIX

Cost of Living Index for Expenditure Groups

Centre	Below Rs. 50	50-100	100-150	150-250	250-350	350-500	Average
Alwaye	387	329	217	297	279	265	317
Moovattupuzha	366	374	362	324	298	279	351
Perumbavur	352	336	327	305	281	265	327

A Study of the Economy of the Fisherfolk in Njarakkal (1954)

The surveys described above pertain to urban areas and their findings throw light on the standard of life of the urban folk. For an insight into the standard of living of the rural or semi-urban folk we may turn to the report on the survey of the economy of the fisherfolk in Njarakkal, among other places in the State, undertaken by the erstwhile Travancore-Cochin Economic Research Council in 1954. Sixty households were covered by the survey. Most of the houses were merely huts which served only for providing shelter and provided no other amenities. Out of 60 households covered by the survey at Njarakkal 31 had walls made of *thatties* (rudimentary screens) and 29 of bricks. The average number of occupants in each household was 5.5. A sum of Rs. 1,360 was earned by all the 60 households on an average during a fortnight. Thus a household had an average income of Rs. 22.7 for a fortnight. Most of the households earned not more than Rs. 20 a fortnight. As a matter of fact 45% of the households fell in the income group Rs. 10 to 20. Of the remaining households 35% earned between Rs. 20 and Rs. 30 while 20% were in the income group Rs. 30 to 40. There were no households in any income group above Rs. 30 to 40.

With this low income level the total consumption for all the households together on an average during a fortnight was Rs. 1671. This meant that the average expenditure of the households was approximately Rs. 28. Fifty-three of the 60 households showed some deficit in their budgets. Of these 53 households 10 had deficit at the level of less than 10% of their income. 11 households carried deficit ranging between 10 and 25% of the income while 25 households representing nearly 47% of the total number of households having deficit had it at the level of between 25 to 50% of the average total income.

Nearly half the number of households spent between Rs. 20-30 per fortnight. 28 houseshold (46.7% of the total number) were in this expenditure group. Of the remaining households, 10 (16.6%) spent only between Rs. 10-20 per fortnight while 17 (28.3%) spent between Rs. 30 and Rs. 40 during the same period. In the next higher expenditure group of Rs. 40-50, there were 4 households. There was only one house in the outlay group

Rs. 50-60 which was also the highest expenditure group for this village. Thus over 60% of the households at Njarakkal spent only less than Rs. 30 per fortnight on an average.

Considering the expenditure on various items, it is seen that 85% of the households spent between 50-75% of their total expenditure on food alone. There was one household which spent between 75-90% of its total outlay on food. However, there were 8 households which spent less than 50% of the outlay on items of food.

Home produced food formed a part of the total food consumption. Three quarters of households got home produced food to the extent of between 5-10% of their total outlay, while one household got between 10-15% of the total. 14 households representing 23.3% of the total were able to get only less than 5% equivalent of their total outlay in the form of home produced food, mainly fish. Moreover, about 77% of the households spent between Rs. 10-12 on food per fortnight. Of the remaining households, 5 spent between Rs. 5-10 and the rest (15%) had a food budget ranging between Rs. 20 and Rs. 30 on an average during one fortnight.

Most of the households at Njarakkal spent only a very small part of the total expenditure on pulses and vegetables. It was seen that 73% of the households spent less than 5% of their total outlay on these items, and the rest between 5 and 10%.

Turning to the expenditure on clothing and miscellaneous items of expenditure, it is seen that 38% of the households spent less than 5% of their total outlay on clothing. 40% spent between 5-10% and 22% between 10-25% of the total outlay on items of clothing. A quarter of the households spent less than 5% of their total outlay on miscellaneous items. 53% spent between 5-10%, 20% between 10-25% and 20% of the households more than 25% of the total fortnightly outlay.

It is seen that 22 households (36.7%) spent only less than Re. 1 on clothing per fortnight on the average. 23 households spent between Rs. 1-3 and 14 households between Rs. 3 to 5. There was one household which on an average during a fortnight spent between Rs. 5 and Rs. 10 on clothing.

In the case of miscellaneous items it was found that 90% of the households spent only less than Rs. 5 under this head per fortnight, while of the remaining households 5 were in the miscellaneous expenditure group Rs. 5-10 and the remaining one in the Rs. 10-20 group.

Family Budgets of Agricultural Labourers

The Report of the Minimum Wages Committee for Employment in Agriculture set up by the Government of Travancore-Cochin in 1953 also throws light on the standard of living and family budgets of agricultural workers living in different parts of the District. Enquiries were conducted on behalf of the Committee in the villages of Thodupuzha (Thodupuzha Taluk), Arakuzha (Moovattupuzha Taluk), Aramannur (Kunnathunad Taluk), Chengamanad (Parur Taluk) and Ernakulam (Kanayannur Taluk). Table XX gives the average percentage per family in each of the villages.

TABLE XX

Average distribution and percentage of expenditure per family

Item	Thodupuzha village		Arakuzha village		Aramannur village		Chengamanad village		Ernakulam village	
	Amt. Rs.	%age	Amt. Rs.	%age	Amt. Rs.	%age	Amt. Rs.	%age	Amt. Rs.	%age
1 Food	371.7	59.5	168.2	53.4	158.1	65.2	214.3	62.6	372.0	60.0
2 Rent	..		..	..	..	..	2.3	0.7	1.0	0.1
3 Light and Fuel	8.9	1.4	4.9	1.6	3.8	1.6	14.1	4.1	41.4	6.8
4 Panmupari	29.6	4.7	29.3	9.3	27.6	11.4	18.3	5.4	29.8	4.9
5 Clothing	55.3	8.8	23.7	7.5	12.6	5.3	14.5	4.2	34.2	5.6
6 Miscellaneous	160.0	25.6	89.0	28.2	40.6	16.7	78.9	23.0	133.6	21.8

General Level of Employment

The Employment Market Reports periodically published by the National Employment Service, Kerala State, throw light on the general level of employment in different occupations in the District. The National Employment Service regularly collects employment market information from employers in the private and public sectors. According to the Ernakulam Employment Market Report for the

quarter ending September 30, 1963, the employment in the private sector stood at 29,941 and that in the public sector at 33,466. Women constituted 19.2 of the total employment in the District, 14.0% in the public sector and 25.1% in the private sector.

The Employment Market Reports also throw light on the unemployment trends in the District. There were 23,692 applicants including 5,658 women on the live register of the Exchange during the period ending September 30, 1963. Of these 588 persons were Graduates, 196 persons were Intermediates and 9,883 were Matriculates.

A significant feature of the unemployment position in this District is the large number of females as well as of educated persons among the unemployed. Tables XXI and XXII give the sex-wise break-up of the number of unemployed persons as well as of the number of educated applicants (Matriculates and above) on the live register for each of the years from 1956 to 1963.

TABLE XXI

Total number of unemployed persons (1956-63)

Year	No. of Persons on the Live Register		
	Male	Female	Total
1956	4,195	1,084	5,279
1957	7,502	2,220	9,722
1958	38,433	2,911	41,344
1959	34,052	6,064	40,116
1960	29,961	5,597	35,558
1961	22,908	5,959	28,867
1962	33,999	7,763	41,762
1963	14,769	4,710	19,479

TABLE XXII

Number of educated applicants (Matrics & above) on the Live Register at the end of each year from 1956-1963

Year	Male	Female	Total
1956	2,286	907	3,193
1957	3,843	1,391	4,234
1958	8,100	2,593	8,693
1959	8,240	1,984	10,224
1960	6,993	3,194	10,187
1961	7,791	3,598	11,389
1962	9,787	4,990	14,770
1963	5,770	3,581	9,351

Employment Exchange, Ernakulam

The Divisional Employment Exchange, Ernakulam, was started in 1949. An idea of the working of the Exchange since 1956 can be had from Table XXIII which gives figures of the number of registered employment seekers, placings, persons on the live register and employers using the Exchange during each of the years from 1956 to 1963.

TABLE XXIII

Number of registered employment seekers, placings, persons on the live register etc. (1956-63)

Year	No. of registrations during the year	No. of placements during the year	No. pending on the live register at the close of the year	No. of employers using the Exchange
1956	6,986	1,595	5,279	422
1957	8,929	2,002	9,722	624
1958	33,013	1,266	41,344	530
1959	24,256	1,333	40,116	442
1960	17,198	1,567	35,558	449
1961	15,659	2,220	28,867	522
1962	21,850	2,647	41,762	770
1963	20,494	2,650	19,479	689

The Divisional Employment Exchange, Ernakulam, has also been carrying on other useful activities such as vocational guidance, collection of employment market information etc. The Vocational Guidance section was set up in the Exchange in 1959. It is intended to assist the individual to choose the right type of occupation and prepare for it. An Employment Information and Assistance Bureau was opened at Thodupuzha in 1961 and it is attached to the Stage I N.E.S. Block. The registration of applicants in the Block area, rendering the necessary employment information to local candidates and collection of employment market information are the important activities of the Bureau.

Community Development Programme

The Ernakulam District was one of the areas where the Community Development programme was originally introduced on an experimental basis. The Ankamali N. E. S. Block (Stage II) formed part of the Kunnathunad-Chalakudi Community Project which was started as early

as October, 2, 1952. In 1964-65 there were the following 17 N. E. S. Blocks in this District:—

1	Ankamali	2	Thodupuzha
3	Moovattupuzha	4	Pampakuda
5	Alangad	6	Parur
7	Palluruthi	8	Kothamangalam
9	Mulanthuruthi	10	Vaipin
11	Elamdesom	12	Koovappadi
13	Parakkadavu	14	Vadavukode
15	Edappilli	16	Vyttila
17	Vazhakulam		

A detailed statement giving such particulars as the name of the Block, its headquarters, year of starting, present status, area in square miles, population and the number of villages covered is given in Appendix VII. A statement showing the comparative progress achieved and expected under the Community Development Programme in the District with reference to the number of villages and population covered is given in the table at Appendix VIII.

The Community Development Programme is a multipurpose programme embracing almost all fields of developmental activity. These activities may be classified under the following heads:— 1. Agriculture and Animal Husbandry 2. Irrigation 3. Co-operation 4. Health and Rural Sanitation 5. Education 6. Social Education 7. Communication 8. Rural Arts Crafts and Industries and 9. Housing. In order to give the reader a general idea of the constitution and working of a N. E. S. Block, a succinct account of the Ankamali N. E. S. Block, the oldest in the field is given below. As stated earlier, the Ankamali N. E. S. Block originally formed part of the Kunnathunad-Chalakudi Community Project started on October, 2, 1952. It became a Post-Project Block when the Kunnathunad-Chalakudi Community Project was wound up and split into Blocks on October 1, 1956. It was converted into a Stage II Block with effect from April 1, 1957. The Ankamali N. E. S. Block covers an area of 64 sq. miles and a population of about one lakh. It includes nine Revenue Villages, namely:—1. Kothakulangara South, 2. Kothakulangara North 3. Manjapra 4. Manickamangalam 5. Chowara 6. Kizhakumbhagom 7. Vadakkumbhagom 8. Thekkumbhagom and 9. Malayattur. The Block area forms part of Alwaye Taluk, and the headquarters is located at Ankamali. The Block is functioning with the Block Development Officer at its head. Each item of Community Development is in the charge of a specialist called Extension Officer. The Block is divided into several circles each of which is under a Grama Sevak.

The Ankamali N. E. S. Block has significant achievements to its credit in almost all fields of activity such as Agriculture, Animal Husbandry, Co-operation, Social Education, Public Health etc. The table given at Appendix IX gives an idea of the physical achievements and people's contributions in this Block till the end of the period 1962-63.

APPENDIX I

TABLE A

Average annual Price of Unhusked Rice (Paddy), 1,000 Macleod seers from 1860 to 1880 at Cochin calculated at the rate of 4½ seers of Rice to 10 of Paddy

Year	Price Rs.	As.	Ps.
1860	57	15	1
1861	57	5	7
1862	52	15	7
1863	50	11	8
1864	61	15	10
1865	66	2	1
1866	72	2	2
1867	55	13	0
1868	58	2	0
1869	55	8	10
1870	51	8	0
1871	50	5	10
1872	49	6	6
1873	49	14	10
1874	59	7	4
1875	54	10	0
1876	60	12	6
1877	77	13	8
1878	78	9	4
1879	69	7	11
1880	58	7	2

TABLE B

Average Monthly Price of Unhusked Rice (Paddy) 1,000 Macleod seers from 1860 to 1880 at Cochin calculated at the rate of 4½ seers of Rice to 10 of Paddy

Month	Price Rs.	As.	Ps.
Total	719	9	8
January	57	7	1
February	57	6	5
March	58	5	1
April	57	10	5
May	61	6	11
June	62	5	1
July	63	4	5
August	65	2	5
September	61	13	10
October	59	5	9
November	57	15	9
December	57	7	1
Averages—			
of the 12 months	59	13	6
„ dear „	62	12	11
„ cheap „	57	15	0

APPENDIX I *Concld.*

TABLE C

Price of 1,000 Macleod seers of Gingelly-seed, Coconut and Areca from 1861 to 1881 at Cochin

Year	Gingelly-Seed Rs.	As.	Ps.	Coconut: Price of 1,000 green Coconuts Rs.	As.	Ps.	Arecas: Price of 1,000 green Arecanuts Rs.	As.	Ps.
1861	..	..	..	..	..	..	..	..	..
1862	156	4	0	26	5	4	1	11	0
1863	161	7	4	24	2	8	1	5	4
1864	161	7	4	20	13	4	1	7	8
1865	177	1	4	23	10	8	2	6	4
1866	182	4	8	34	9	4	3	12	0
1867	229	2	8	31	15	9	2	12	2
1868	171	14	0	28	6	9	1	2	2
1869	145	13	4	27	1	6	1	11	9
1870	166	10	8	25	3	7	2	13	2
1871	161	7	4	25	13	4	1	9	8
1872	156	4	0	25	0	0	1	6	6
1873	145	13	4	26	0	0	4	0	0
1874	125	0	0	31	8	0	6	0	0
1875	125	0	0	31	0	0	2	8	0
1876	156	4	0	29	0	0	2	12	0
1877	166	10	8	28	0	0	1	8	0
1878	281	4	0	26	0	0	1	8	0
1879	239	9	4	25	0	0	1	8	0
1880	177	1	4	25	0	0	2	0	0
1881	166	10	8	..	..	..	..	..	..

APPENDIX II

Prices in Seers per Rupee at Cochin (1916-31)

Year	Rice Second Sort	Paddy First Sort	Paddy Second Sort	Salt
1916-17	7.2	11.0	11.6	12.5
1917-18	7.0	9.6	10.7	9.3
1918-19	5.8	7.7	8.2	9.8
1919-20	4.7	6.4	6.1	10.5
1920-21	5.5	7.6	..	11.3
1921-22	5.6	8.4	8.4	11.0
1922-23	6.1	8.9	9.2	9.4
1923-24	6.04	9.14	9.58	8.43
1924-25	5.22	7.65	8.14	11.09
1925-26	5.60	8.01	8.41	10.69
1926-27	5.3	7.9	8.5	11.2
1927-28	5.6	8.2	8.9	12.8
1928-29	6.1	8.4	9.0	12.8
1929-30	6.8	9.3	9.8	12.8
1930-31	.5	11.7	12.4	12.8

APPENDIX

Retail prices in Rupees of some selected commodities in

	Commodity	Unit	1951-52	1952-53	1953-54	1954-55
1	Rice	kg.	0.52	0.52	0.52	0.51
2	Sugar	"	1.12	1.06	1.01	0.99
3	Tea	"	5.50	4.84	5.15	5.30
4	Coconut	100 Nos.	19.35	17.67	17.44	15.81
5	Arecanut	"	1.75	1.80	2.14	2.36
6	Black gram	kg.	0.81	0.79	0.70	7.57
7	Green gram	"	0.77	0.77	0.72	0.44
8	Brinjal	"	0.37	0.33	0.37	0.30
9	Pumpkin	"	0.18	0.18	0.18	0.16
10	Mutton	"	2.49	2.51	2.38	2.20
11	Onion	"	0.41	0.26	0.26	0.17
12	Firewood	Quintal	2.80	2.76	2.73	2.63
13	Pepper*	kg.	11.15	10.71	6.36	3.59
14	Ginger*	"	2.85	1.53	1.64	2.80

* Relates to wholesale prices as retail prices are not available.

III

Kerala during 1951-52 to 1961-62 (July to June)

	1955-56	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62
	0.51	0.62	0.61	0.66	0.68	0.67	0.70
	0.99	1.01	0.17	1.21	1.41	1.23	1.19
	6.08	5.50	5.93	5.28	5.88	6.08	6.23
	14.90	16.21	19.96	21.32	21.76	24.17	22.28
	2.24	2.61	2.99	2.91	3.11	3.18	3.84
	0.59	0.81	0.70	0.70	0.70	0.70	0.77
	0.53	0.59	0.66	0.81	0.77	0.81	0.79
	0.35	0.37	0.37	0.33	0.39	0.41	0.42
	0.16	0.16	0.16	0.18	0.18	0.88	0.22
	2.27	2.35	2.42	2.60	2.66	2.86	3.17
	0.26	0.20	0.30	0.24	0.30	0.28	0.35
	2.57	2.52	2.47	2.49	3.17	3.32	3.94
	3.59	2.14	1.90	1.98	4.24	4.25	3.33
	3.10	1.50	0.81	0.96	1.58	1.36	1.56

APPENDIX IV

Analysis of monthly food expenditure per family and per equivalent adult male

(Ernakulam town—Organised Industries)

	Food Group	All families (261) Per family Rs.	As.	Ps.	Per equivalent adult male Rs.	As.	Ps.	Percentage to total expenditure
	Grand Total	**21**	**15**	**8**	**3**	**15**	**3**	**100.00**
	Total	**7**	**13**	**9**	**1**	**6**	**7**	**35.76**
1	Cereals & Pulses							
	Rice	7	8	8	1	5	8	34.31
	Other grains	0	0	5	0	0	1	0.12
	Dhall	0	4	8	0	0	10	1.33
	Total	**2**	**5**	**8**	**0**	**6**	**9**	**10.71**
2	Vegetables							
	Potatoes	0	2	5	0	0	5	0.69
	Tapioca	0	2	3	0	0	5	0.64
	Onion	0	1	5	0	0	3	0.40
	Coconut	0	10	6	0	1	11	2.99
	Other vegetables	1	5	1	0	3	9	5.99
3	Meat and fish							
	Total	**2**	**13**	**5**	**0**	**8**	**2**	**12.91**
	Meat	0	10	2	0	1	10	2.89
	Fish	2	3	3	0	6	4	10.02
4	Milk	0	11	2	0	2	0	3.18
	Total	**1**	**0**	**0**	**0**	**2**	**11**	**4.55**
5	Ghee & Oils Ghee	0	3	6	0	0	8	1.00
	Oils	0	12	6	0	2	3	3.55
6	Condiments							
	Total	**1**	**0**	**6**	**0**	**3**	**0**	**4.69**
	Chillies	0	6	1	0	1	1	1.73
	Tamarind	0	3	2	0	0	7	0.90
	Other condiments	0	7	3	0	1	4	2.06
7	Salt	0	3	3	0	0	7	0.92
8	Sugars							
	Total	**0**	**11**	**1**	**0**	**2**	**0**	**3.15**
	Sugar	0	8	11	0	1	7	2.53
	Jaggery	0	2	2	0	0	5	0.62
9	Coffee & Tea							
	Total	**0**	**5**	**11**	**0**	**1**	**1**	**1.69**
	Coffee	0	2	10	0	0	6	0.81
	Tea	0	3	1	0	0	7	0.88
10	Liquor	1	0	3	0	2	11	4.62
11	Tobacco							
	Total	**0**	**13**	**3**	**0**	**2**	**5**	**3.77**
	For smoking	0	9	6	0	1	9	2.70
	For chewing	0	3	9	0	0	8	1.07
12	Other foods, including refreshments, pansupari etc.	3	1	5	0	8	10	14.05

APPENDIX V

Family Expenditure on important items-
Expenditure Group: Below Rs. 50 per month

Item	Alwaye	Moovattupuzha	Perumbavur
Total	**37.5**	**40.26**	**39.14**
Rice	11.2	13.71	14.82
Condiments	..	2.70	2.93
Pulses	0.5	0.56	0.13
Tapioca	0.7	1.73	2.73
Vegetables	1.1	1.89	0.80
Meat	0.3	0.54	0.40
Fish	2.4	1.10	1.23
Milk	0.4	0.21	0.18
Tea, Coffee, etc.	1.8	2.08	2.31
Oil	1.3	2.25	0.96
Coconut	1.0	1.24	0.55
House rent	1.1	1.51	2.51
Light	0.5	0.44	0.40
Fuel	2.3	3.33	2.15
Clothing-year	2.3	2.38	1.36
Pansupari	2.5	2.39	1.97
Education Recreation & Medical	1.3	2.41	3.19
Washing	..	0.82	0.52

Expenditure Group: Rs. 50-100 per month

Item	Alwaye	Moovattupuzha	Perumbavur
Total	**68.1**	**76.63**	**75.25**
Rice	20.5	23.95	27.20
Condiments	3.0	4.80	4.97
Pulses	1.1	2.04	0.66
Tapioca	0.4	3.58	4.06
Vegetables	2.6	2.56	2.34
Meat	1.2	1.55	1.10
Fish	4.1	1.81	1.76
Milk	1.3	1.01	1.56
Tea, Coffee, etc.	3.8	4.55	4.32
Oil	2.6	4.22	1.77
Coconut	1.9	2.92	1.51
Clothing	4.9	4.62	2.82
Washing	..	1.96	1.04
Rent	2.3	3.13	5.26
Light	1.2	0 76	0.68
Fuel	4.4	5.95	4.61
Education Recreation & Medical	2.1	4.00	7.24
Pansupari	3.8	3.22	2.95

APPENDIX V

Family Expenditure on important items—*Contd.*

Expenditure Group: Rs. 100-150 per month

Items	Alwaye	Moovattupuzha	Perumbavur
Total	**110.7**	**122.47**	**121.90**
Rice	31.4	34.77	37.97
Condiments	5.1	7.57	8.35
Pulses	1.9	3.61	1.92
Tapioca	0.6	4.49	8.84
Vegetables	4.4	5.03	4.88
Meat	2.3	3.50	1.95
Fish	5.8	2.63	2.15
Milk	5.4	4.93	7.26
Tea, coffee, etc.	5.1	7.05	6.13
Oil	3.7	6.35	3.08
Coconut	3.4	3.65	3.56
Clothing-Year	6.6	9.06	5.52
Washing	—	2.78	1.98
Rent	4.6	6.17	9.34
Light	1.3	1.10	1.13
Fuel	7.5	8.31	6.39
Education, Recreation & Medical	5.6	6.92	12.64
Pansupari	4.7	5.02	3.81

Expenditure Group: Rs. 150-250 per month

Items	Alwaye	Moovattupuzha	Perumbavur
Total	**169.7**	**188.12**	**192.36**
Rice	41.2	44.28	45.72
Condiments	7.0	11.74	13.00
Pulses	3.5	5.59	3.98
Tapioca	0.4	4.12	2.93
Vegetables	7.4	8.06	7.76
Meat	4.1	5.79	3.03
Fish	7.7	4.18	2.64
Milk	13.2	12.70	18.49
Tea, Coffee, etc.	7.5	9.62	10.63
Oil	5.8	9.12	5.18
Coconut	5.3	6.87	6.38
Clothing-Year	10.4	14.37	[illegible].76
Washing	—	3.90	3.40
Rent	9.7	11.79	16.70
Light	2.1	1.88	1.98
Fuel	10.3	9.90	9.12
Education, Recreation & Medical	9.5	17.91	[illegible].44
Pansupari	6.3	6.44	5.21

APPENDIX V

Family Expenditure on important items—Contd.

Expenditure Group: Rs. 250-350 per month

Item	Alwaye	Moovattupuzha	Perumbavur
Total	252.0	288.44	292.83
Rice	55.6	51.79	51.89
Condiments	9.9	18.90	18.09
Pulses	5.6	12.53	5.53
Tapioca	—	3.36	1.48
Vegetables	9.2	12.03	13.51
Meat	7.8	12.30	7.54
Fish	11.1	7.12	5.15
Milk	21.4	24.71	36.40
Tea, Coffee, etc.	9.3	15.43	16.51
Oil	8.7	12.71	8.70
Coconut	7.0	9.43	8.66
Clothing-Year	17.1	22.30	19.17
Washing	4.8	5.85	6.50
Rent	16.1	16.67	30.00
Light	2.9	3.09	4.26
Fuel	14.3	14.08	11.82
Education, Recreation & Medical	20.2	37.20	48.68
Pansupari	7.6	9.48	5.94

Expenditure Group: Rs. 350-500 per month

Item	Alwaye	Moovattupuzha	Perumbavur
Total	359.0	396.94	394.11
Rice	64.0	61.94	56.48
Condiments	11.5	24.00	19.43
Pulses	9.0	13.67	12.29
Tapioca	..	6.19	1.24
Vegetables	14.1	13.50	16.00
Meat	10.9	16.89	2.29
Fish	14.3	6.75	1.71
Milk	38.5	42.58	52.24
Tea, Coffee, etc.	15.4	20.97	27.10
Oil	7.4	16.97	12.71
Coconut	9.0	15.33	11.43
Clothing-Year	23.3	29.13	28.86
Washing	6.0	8.41	6.90
Rent	34.0	20.56	36.43
Light	4.4	3.32	4.71
Fuel	20.7	15.56	16.29
Education, Recreation, & Medical	29.2	66.28	77.79
Pansupari	14.5	14.89	9.21

APPENDIX VI

The average quantities of the various commodities consumed per month in the family obtained by dividing the expenditure and the various items by the respective prices

Item	Unit	Expenditure Groups: Below Rs. 50	Rs. 50-100	Rs.100-150	Rs.150-250	Rs.250-350	Rs.350-500
		ALWAYE					
Rice	Ed.	24.36	44.65	68.29	89.62	120.92	139.08
Condiments	lb.	4.32	9.16	15.72	21.70	30.52	35.54
Tapioca	lb.	10.34	5.91	8.86	5.91	10.34	1.33
Pulses	lb.	1.26	2.85	5.16	9.53	15.20	24.52
Vegetables	lb.	5.10	12.05	19.93	34.25	42.64	65.48
Meat	lb.	0.37	1.51	2.83	5.08	9.60	13.39
Fish	lb.	3.58	6.12	8.66	11.50	16.64	21.29
Milk	Ed.	0.67	1.46	6.05	14.78	23.99	43.06
Tea, coffee, etc.	lb.	2.63	5.55	7.44	9.43	13.57	22.44
Oil	Ed.	0.54	1.08	1.54	2.41	3.62	3.09
Coconuts	Nos.	4.00	8.00	15.00	23.00	30.00	38.00
Clothing	Yds.	2.32	4.88	6.63	10.41	17.08	23.93
Washing	Nos.	5.00	12.00	22.00	47.00	80.00	100.00
Rent	As.	17.60	36.80	73.60	155.20	257.60	544.00
Light	Unit	1.00	2.40	4.14	6.68	9.22	14.0
Fuel	lb.	172.69	330.36	563.12	773.35	1073.67	1554.20
Education	Annas.	20.80	33.60	89.60	152.00	318.72	468.80
Pansupari	Annas.	2.00	3.04	3.76	5.04	6.11	11.60
		MOOVATTUPUZHA					
Rice	Ed.	26.01	45.43	65.96	84.00	98.25	117.50
Condiments	lb.	4.95	8.80	13.86	21.52	34.65	44.00
Tapioca	lb.	32.05	66.33	83.19	76.33	62.25	144.69
Pulses	lb.	1.44	5.26	9.30	14.40	32.28	35.22
Vegetables	lb.	3.16	9.09	17.87	28.63	42.73	47.96
Meat	lb.	0.63	1.81	4.10	6.78	14.40	19.77
Fish	lb.	1.96	3.23	4.69	7.46	12.70	12.04
Milk	Ed.	0.23	1.08	5.29	13.62	26.49	45.65
Tea, Coffee, etc.	lb.	2.09	4.58	7.09	9.68	15.53	21.10
Oil	Ed.	0.70	1.32	1.99	2.85	3.81	5.31
Coconuts	No.	5.07	12.23	15.29	28.40	39.50	64.21
Clothing	Yds.	1.75	3.39	6.65	10.54	16.36	21.37
Washing	No.	8.20	19.60	27.80	39.00	58.50	84.10
Rent	Annas	24.16	50.10	98.72	188.64	266.72	328.96
Light	Unit	0.66	1.14	2.91	4.85	8.19	8.80
Fuel	lb.	190.44	320.28	475.25	566.18	805.23	889.87
Education	Annas	35.56	64.00	110.72	286.56	595.20	1061.48
Pansupari	Unit	0.94	1.27	1.98	2.54	3.74	8.88

APPENDIX VI

The average quantities of the various commodities consumed per month in the family obtained by dividing the expenditure and the various items by the respective prices—*Concld.*

Item	Unit	Expenditure Groups: Below Rs. 50	Rs.50-100	Rs.100-150	Rs.150-250	Rs.250-350	Rs.350-500
		PERUMBAVUR					
Rice	Ed.	28.11	51.60	72.03	86.73	98.44	107.15
Condiments	lb.	5.37	9.11	15.31	23.83	33.16	35.62
Tapioca	lb.	50.58	75.22	71.15	54.29	27.42	22.97
Pulses	lb.	0.33	1.70	4.95	10.25	14.25	31.66
Vegetables	lb.	2.84	8.31	17.34	27.57	47.99	56.84
Meat	lb.	0.47	1.29	2.28	3.55	8.83	2.68
Fish	lb.	2.19	3.14	3.84	4.71	9.19	3.05
Milk	Ed.	0.19	1.67	7.78	19.82	39.03	57.08
Tea, Coffee, etc.	lb.	2.32	4.35	6.17	10.70	16.62	27.27
Oil	Ed.	0.30	0.55	0.96	1.62	2.72	3.98
Coconuts	Nos.	2.30	6.33	14.91	26.72	36.27	46.87
Clothing	Yds.	1.00	2.07	4.05	7.89	14.06	21.17
Washing	No.	5.20	10.40	19.80	34.00	65.00	69.00
Rent	Annas	40.16	84.16	149.44	267.20	480.00	582.88
Light	Unit	0.60	1.02	2.09	5.25	11.29	12.48
Fuel	lb.	122.96	263.64	365.44	521.57	675.98	931.62
Education	Annas	51.04	115.84	202 24	407.04	778.88	1244.64
Pansupari	Unit	0.78	1.16	1.50	2.06	2.35	3.64

APPENDIX

Blocks started in the Ernakulam District

Taluk	Name of Blocks
1 Cochin	1 Palluruthi
	2 Vaipin
2 Kanayannur	1 Edappilli
	2 Vyttila
	3 Mulanthuruthi
3 Alwaye	1 Parakkadavu
	2 Ankamali
4 Parur	1 Parur
	2 Alangad
5 Kunnathunad	1 Vadavukode
	2 Kuvappadi
	3 Vazhakulam
6 Thodupuzha	1 Thodupuzha
	2 Elamdesom
7 Moovattupuzha	1 Moovattupuzha
	2 Pampakada
	3 Kothamangalam

APPENDIX

Community Development

Item	Units	1950-51	1955-56	1960-61
Blocks	Number	..	4	14
Villages covered	"	..	34	97
Population served	Thousands	..	392.14	1305.4

VII

showing Area and Population as on 1-4-1964

Status		Year of starting	Area in sq. miles	Population	No. of Villages/ Panchayats
Stage	I	1-4-1958	24-25	73,453	8
Stage	I	1-10-1959	39-5	1,26,443	7
Pre-Extn.		1-5-1963	94-75	85,974	6
Stage	I	1-4-1962	17-89	52,107	9
Stage	I	1-10-1960	52-5	106,492	6
Stage	I	1-4-1961	46-6	74,140	5
Pre-Stage	II	1-10-1956	64	122,695	8
Stage	II	1-10-1957	28-3	9,672	5
Stage	II	1-4-1957	26-48	81,220	4
Stage	I	1-10-1961	72-06	81,708	6
Stage	I	1-4-1959	63-5	100,260	5
Pre-Extn.		1-5-1963	50-5	79,609	5
Stage	II	8-4-1956	62-	79,862	7
Stage	I	1-4-1960	21-70	43,346	
Pre-Stage	II	2-10-1953	81-5	91,458	8
Stage	II	1-10-1956	80-39	86,826	8
Stage	I	1-10-1958	91-02	92,849	7

VIII

In Ernakulam District

1965-66 Target	Increase in 1960-61	Increase in 1965-66	Remarks
	Over 50-51%	Over 60-61%	
17	..	21.43	All the 17 Blocks in the District have been opened by 1-5-1963.
110	..	13.40	The figures given in column 4 & 5 relate to the position as at the end of 1956 & 1961.
1520.29	..	16.46	

APPENDIX IX

Physical Achievements and People's Contribution in the Ankamali N. E. S. Block till the end of 1962-63

1	Compost Pits (Nos.)		6,011
2	Chemical fertilisers (tons)		1,769
3	Insecticides (Tons)		51.9
4	Plants sprayed (Nos.)		3,89,584
5	Improved seeds (Tons)		144.69
6	Green manure seeds distributed (kgs.)		225
7	Green Manure cuttings (Nos.)		3,28,458
8	Coconut seedlings (Nos.)		30,594
9	Fertilizers & Cultural demonstration, (Nos.)		1,592
10	Holdings taken up (Nos.)		5
11	Area under Japanese Method of paddy cultivation (Acres)		5,494
12	Quantity of vegetable seeds (Lb.)		358.4
13	Improved implements (Nos.)		334
14	Young farmers clubs (Nos.)		11
15	Crop competition (Nos.)		77
16	Persons participated (Nos.)		477
17	Breeding centres-Natural (Nos.)		1
18	Breeding centres-Artificial		1
19	Pedigree Bulls supplied (Nos.)		2
20	Insemination Natural (Nos.)		605
21	Insemination Artificial (Nos)		2,776
22	Veterinary dispensaries (Nos.)		1
23	Animals innoculated (Nos.)		31,943
24	Bulls castrated (Nos.)		2,439
25	Hatching eggs distributed (Nos.)		5,149
26	Pedigree birds supplied (Nos.)		348
27	Poultry centres opened (Nos.)		50
28	Poultry treated & vaccinated (Nos.)	Treated	37,768
		Vaccinated	19,253
29	Cattle shows conducted (Nos.)		15
30	Quantity if mineral mixture (Mds.)		1.95 (Tons)
31	Area under fodder cultivation (Acres)		37.4
32	Milk societies registered (Nos.)		Nil
33	Pump sets supplied (Nos.)		166
34	Tanks improved (Nos.)		143
35	Canals & channels constructed		99.5 furlongs
36	Area irrigated by Wells		2,028 Acres
37	,, Tanks		2,112 Acres
38	,, Canals		15,089 Acres
39	,, Others		Nil
40	Area reclaimed (Acres)		77.3
41	Demonstration plots for soil conservation (Nos.)		Nil
42	Surface wells constructed (Nos.)		293
43	Surface well renovated (Nos.)		563
44	Tube Wells (Nos.)		Nil
45	Fisheries & Finger		3,554
46	Soakage pits (Nos.)		113
47	Rural latrines (Nos.)		1,229
48	Drains constructed (Yds.)		13,632
49	Smokless chullas (Nos.)		74
50	Village lanes paved (Sq. yds.)		884
51	Bathing ghats (Nos.)		7
52	Secondary primary Health centres (Nos.)		1
53	Existing dispensaries (coverted)		1
54	Mobile Health centres (Nos.)		Nil
55	Baby clinics (Nos.)		Nil
56	Maternity & Child welfare centres		6
57	Family planning advising clinics (Nos.)		2
58	Village Houses constructed (Nos.)		400
59	Village houses reconditioned (Nos.)		847

APPENDIX IX

Physical Achievements and People's Contribution in the Ankamali N. E. S. Block till the end of 1962-63—*Contd.*

60	Aid given to existing schools (Nos.)	41
61	Community centres (Nos.)	14
62	Children's parks (Nos.)	2
63	Sports Clubs (Nos.)	17
64	Adults Literacy centres (Nos.)	3
65	Adults benefited (Nos.)	69
66	New Libraries & Reading Rooms (Nos.)	27
67	Books supplied (Nos.)	2,891
68	Entertainments (Nos.)	330
69	Cultural clubs (Nos.)	26
70	Members (Nos.)	1,332
71	Women's Clubs (Nos.)	13
72	Members (Nos.)	885
73	Village leaders Camps	24
74	Village leaders trained (Nos.)	1,223
75	N. C. C., A. C. C., B. S. S., Camps	7
76	Cenema shows	140
77	Pucca roads (Miles)	26
78	New Kacha roads (Miles)	19
79	Existing roads improved (Miles)	34
80	Culverts (Nos.)	15
81	Foot bridge (Nos.)	4
82	Production centres (Nos.)	8
83	Crafts adopted (Nos.)	6
84	Students trained (Nos.)	87
85	Bee-hives supplied (Nos.)	217
86	Credit/Multipurpose co-operative Societies (Nos.)	35
87	Industrial Co-operative Societies (Nos.)	2
88	Farming Co-operative Societies (Nos.)	1
89	Others (Nos.)	2
90	Total	40
91	Membership in Credit & Multi-purpose	2,879
92	Industrial	173
93	Farming	296
94	Others	2,015
95	Total	5,363
96	Labour Value (Rs. '000)	88.559
97	Land (Acres)	10
98	Cash & Other contributions (Rs. 1000	80.50

CHAPTER X

GENERAL ADMINISTRATION

The Ernakulam District is divided both on geographical and functional basis for purposes of general administration. Geographically, it is divided into two Revenue Divisions, seven Taluks, 22 Firkas and 111 Villages. Functionally, the District administration is channelled through various departments of the State Government each of which has one or more offices of its own at the District level.

Role and Functions of the District Collector

The District Collector is the head of the District administration and as such he occupies a key place in the administrative set-up of the District. He is referred to as the king-pin of the administration or the pivot around which the administration revolves or the eyes and ears of Government or the '*Ma-Baap*' of the District. From which-ever angle one may look at this office, the fact remains that it is today of paramount significance in the administration of the country. The Government have recognised the Collector as their chief representative in the District and other Officers as his techinical assistants. As the accredited agent of the Government the Collector is the "nerve centre" of all Government activities in the District. He supervises, directs and co-ordinates the activities of the various departments with particular reference to the planned development of the District. The authority of the District Collector is derived from different statutes, executive instructions and other ancillary powers. He also enjoys all the residuary functions in the District. Whenever the Government require any particular activity to be carried out in the District, they look up to the Collector for help, especially if what is proposed to be done is not specifically ear-marked as the function of any department. Apart from all these, the Collector's authority is based on historical factors, conventions and traditions. As the officer responsible for land revenue collection, which is perhaps the basic function of

any Government known to history, the Revenue Collector had gained over the centuries considerable prestige and importance. During the British period, in addition to the collection of revenue, he was in sole charge of the maintenance of law and order. This made him a key functionary of Government having wide powers and large responsibilities. The transition from British rule to Independence did not involve any diminution in the authority and importance of the Collector. On the other hand, his functions have increased in variety and importance. With the advent of economic planning the Government have begun to rely more and more on the District Collector for the effective co-ordination and implementation of plan schemes.

The functions of the District Collector may be classified into seven important groups, viz., (1) Revenue (2) Law and Order (3) Elections (4) Development (5) Relation with local bodies (6) Welfare activities and (7) Miscellaneous functions such as food production drive etc. The more important of the functions falling under each group are described below:—

Revenue Functions

The Collector is the head of the Land Revenue Department in the District. The major duties include general supervision and control over revenue collection, land records and the staff of the Revenue Department. This involves promotions, transfers, demotions, punishments etc. of the subordinate officers according to the rules framed by the Government, guiding and controlling the work in the Collectorate and subordinate offices through frequent inspections and discussions and supervision over the collection of revenue, submission of periodical returns to the Board of Revenue and the Government and also hearing of appeals against decisions of the subordinate officers. In this category may also be included the civil supply functions in connection with food grains, sugar, cement and other essential commodities.

In the exercise of his functions the Collector comes into contact with other Departments. This is particularly seen in regard to land acquisition and revenue recovery proceedings. The functions of the Collector in regard to taking possession of the required land and handing it over to the requisitioning departments have been specified in the



COLLECTORATE (OLD SECRETARIAT BUILDINGS) ERNAKULAM, WITH THE SUBHAS BOSE PARK IN THE FOREGROUND

Kerala Land Acquisition Act (1961). The Revenue Recovery Act prescribes the responsibilities of the Collector and his subordinates. In the discharge of these, he comes into contact with many departments of the Government of India, eg., the Income Tax Department.

The District Collector is responsible for safeguading Government lands and he is given specific functions and powers under the Kerala Land Conservancy Act (1957). Under this Act the Collector is to take action against encroachers. But in actual practice his powers have been delegated to the Tahsildars for all actions except hearing appeals. The Collector is to hear appeals against the orders of the Tahsildars.

Mention may be made of the powers under the Kerala Stamp Act (1959) also. The Collector has powers in respect of adjudication of stamps, impounding of documents, refund of stamps and offences under the Kerala Stamp Act.

In the revenue field, the District Collector, Ernakulam, is assisted by two Revenue Divisional Officers, one at Moovattupuzha and another at Fort Cochin, seven Tahsildars, 22 Revenue Inspectors and Revenue Supervisors and 115 Village Officers. In his office he is assisted by a Personal Assistant, a Sheristadar, a Special Deputy Collector, two Head Clerks, 14 Upper Division Clerks, 35 Lower Division Clerks, one Fair Copy Superintendent, one Copyist, one Attender, two Stenographers and 13 Peons.

Law and Order

The Collector is primarily responsible for the maintenance of law and order in the District. In order to enable him to discharge his duties in this regard the police force in the District is placed under his general control and direction. By virtue of his office the Collector exercises the powers of the District Magistrate and is designated Additional District Magistrate. But, with the separation of the judiciary from the executive, he enjoys only such of the powers of the District Magistrate as are of an executive nature. The Superintendent of Police is to assist the Collector in this respect. The Collector has also the authority to investigate into allegations, if any, against the police officials of the District.

In the discharge of his duties the Collector is assisted by his Personal Assistant who is also an Additional District

Magistrate. The two Revenue Divisional Officers are also Executive First Class Magistrates. These functions also involve certain powers under the Arms Act and powers regarding the issue of passports and the conduct of confidential enquires.

The Collector has some powers in regard to the Law Officers in the District. The appointments of Government Pleaders and Public Prosecutors are made by the Government on the recommendation of the Collector in consultation with the District Judge. The payment of fees to Government Pleaders and Public Prosecutors is sanctioned by him. Their travelling allowance bills are also passed for payment by the Collector. It may be noted in this connection that there are four Government Pleaders in this District—two Government Pleaders and two Additional Government Pleaders. One Government Pleader and one Additional Government Pleader have their headquarters at Ernakulam, one Government Pleader has his headquarters at Cochin and the other Additional Government Pleader has his headquarters at Parur.

The posts of Assistant Public Prosecutors are outside the purview of the Public Service Commission. Appointments to the posts of A.P.Ps. Grade II are made by direct recruitment on a District-wise basis. As and when a regular vacancy in the category of A.P.Ps. Grade II arises, the Collector will notify the vacancy and invite applications from Advocates possessing prescribed qualifications. The Collector will then prepare a panel of names in consultation with the Superintendent of Police and the District Judge and forward the same to the Government. The Government are the final authority to make appointments to the posts of Assistant Public Prosecutors in Grade II. But the Collector can make temporary appointments of Assistant Public Prosecutors (Grade II) in vacancies caused by the grant of leave to or by reason of death or resignation of an officer in the grade and which are not likely to last for a period exceeding 3 months. Appointments to the posts of Assistant Public Prosecutors Grade I are made by the Government by promotion from among A. P. Ps. Grade II. It may also be noted that the Assistant Public Prosecutors are under the administrative and disciplinary control of the District Collector.

Elections

In any democracy the way the elections are held is of great importance. The Collector is the Chief Electoral Officer at the District level. In this capacity he is responsible to see that the elections are held in a free and fair manner in his District. He is in over-all charge of all items of work connected with the elections. The Collector has statutory, administrative and executive powers in this connection. He is the Returning Officer of the Parliamentary Constituencies. The Tahsildars are Electoral Registration Officers and revising authorities. The Collector is responsible for the supply, storage, movement, distribution and accounting of all items of election materials and equipment. He has to supervise all arrangements with regard to the conduct of the elections. He has also to arrange for proper *bandobust* and security during the period of polling and counting of votes at each centre.

Development

With the advent of planning, the Collector has a variety of functions connected with it. The District Officers of the concerned departments are treated as his Technical Assistants. The Collector has the power to require the presence of any District Officer or any other Government officer in the District to assist him at any conference or at functions and to call for reports from them. In case of difference of opinion between the Collector and the District Officer in regard to non-technical matters, the District Officer shall carry out the directions of the Collector and then report the matter to his Head of the Department, if he considers it necessary. The tour programmes of the District Officers are to be sent to the District Collector in advance. The Heads of Departments, while on tour in the District, are to meet the Collector and discuss with him outstanding matters connected with their Departments. To facilitate such meetings, the Heads of Departments are expected to send copies of their tour programmes to the District Collector for advance information. The confidential reports of the District Officers also pass through the Collector who can record his own remarks about the officer concerned and this forms an effective weapon in the hands of the Collector to make his authority felt.

The Collector is the Chairman of the District Development Council. The officers of all Departments concerned

with Planning and Development are bound to give the District Collector information regarding the initiation and progress of schemes and also to give him all the facilities to inspect the works in progress. The Collector as the Chairman of the District Development Council may request any Head of the Department to be present at the meetings of the District Development Council. The Head of the concerned Department is expected to attend such meetings unless he has other pressing engagements. In such cases the Head of the Department will inform the Collector of the position in advance and attend the next meeting of the Council.

The Collector is the co-ordinator par excellence of all Government activities in the District. In all developmental and planned activities co-ordination is of great importance and the Collector imparts this vital element to the Governmental activity in the District. The most important field in this respect is agriculture. The Collector is responsible for augmenting the agricultural production of the District. The District Agricultural Officer and the Additional District Agricultural Officer have been declared Personal Assistants to the Collector. They are even expected to submit important files to the Collector for orders. There are Community Development Blocks, seventeen in number in the District. They have Agricultural Extension Officers whose most important function is development of agriculture. The Collector is expected to control and guide all these activities and implement all the programmes satisfactorily.

Relation with Local Bodies

In Kerala the legislation regarding Panchayati Raj has not been passed, though the draft bill has been published. The Collector has, however, certain statutory functions under the Municipalities Act (1960) and the Kerala Panchayats Act (1960). These functions are given below:

According to Section 43 of The Kerala Municipalities Act, the Collector, if authorised by the Government, may exercise the following powers:—

1 To enter on and inspect, or cause to be entered on and inspected, any immovable property or any work in progress under the control of any Municipal authority.

2 To call for any document in the possession or under the control of any Council or Commissioner.

3 To require any Council or Commissioner to furnish any return, plan, estimate, statement, account or statistics, or any information or report on any Municipal matter.

4 To record in writing, for the consideration of the Council or Commissioner, any observations he may think proper in regard to its or his proceedings or duties.

Section 44 of the Act empowers the Collector to call upon the Commissioner to explain his failure to carry out any resolution of the Council and to send a report to the Government together with the explanation, if any, of the Commissioner, marking a copy of his report to the Council.

The Collector is also authorised under Section 45 (2) of the Act, to suspend any resolution, order, licence, permission or Act passed, granted or done by the Council if, in his opinion, immediate action is necessary on any of the grounds referred to in Section 45 (1) (e).

Under Section 46 of the Act, the Collector may, in case of emergency, direct or provide for the execution of any work, or the doing of any act which the Council or the Commissioner is empowered to execute or to do, and the immediate execution or the doing of which is, in his opinion, necessary for the safety of the public, and may direct that the expense of executing such work or doing such act incurred as the emergency may require shall be paid from the Municipal Fund. (If such expense exceeds Rs. 500 the previous sanction of the Government has to be obtained).

Under Section 17 (2) of the Kerala Panchayats Act, if any question arises either before or after an election or nomination as to whether any person is or is not disqualified for becoming a member of a Panchayat under section 17 (1) of the Panchayats Act, the matter will be referred to the Collector for his decision. According to Section 75 of the Panchayats Act, the Collector has to prescribe certain conditions under which an executive authority of a Panchayat can, subject to such rules as may be prescribed, require the Village Officer having jurisdiction over the Panchayat area or any part thereof to collect any tax, cess or surcharge or fee due to the Panchayat.

Again under Section 91 of the Panchayats Act prior sanction of the Collector is necessary for providing any stand or halting place for motor vehicles.

Welfare Activities

The welfare activities of the Government are increasing day by day, and this has added considerably to the responsibilities of the Collector. The welfare functions or '*Ma-Baap*' functions, as they may be called, relate to the administration of Old Age pensions, assistance to T.B. patients, assistance to destitute widows, relief measures in times of emergencies like famines, floods, epidemics etc. The following powers are exercised by the Collector in this regard:—

	Nature of Power	Extent
1	To sanction Old Age Pension	Upto Rs. 15 in each case
2	To sanction grant under "Famine Relief" to victims of natural calamities	Upto Rs. 2,500
3	To sanction grants under "discretionary grants"	Not exceeding Rs. 50 per mensem in extraordinary cases and Rs. 30 per family in ordinary cases subject to an annual expenditure of Rs. 2,000
4	To sanction financial assistance to agriculturists for loss of crops on account of natural calamities	No limit
5	To sanction loans for housing scheme	Upto Rs. 20,000
6	To sanction financial assistance to indigent T.B. patients	At Rs. 30 per mensem upto a maximum of 6 months
7	To sanction discretionary grant to the families affected by natural calamities	Upto Rs. 50
8	To sanction grant-in-aid to physically disabled and handicapped destitutes	Rs. 15 per mensem
9	To sanction pension to destitute widows	Upto Rs. 20 per mensem

The Collector is also responsible for the welfare activities carried out through the N.E.S. Blocks. In this connection he has been empowered to discharge the following functions:- (1) To sanction individual 'Schemes' within the approved programme, the cost of which does not exceed Rs. one lakh and which does not involve appointment of staff borne on regular establishment. (2) To accord administrative approval and to sanction expenditure within the approved programme for individual items of 'work' upto a limit of Rs. one lakh according to the general procedure outlined by the Government. (3) To sanction loans within the approved programme upto Rs. 10,000 in each case, and loans under the Land Improvement Loans Act and Agricultural Loans Act upto Rs. 5,000 in each case.

Miscellaneous Functions

The Collector is the Chairman of the Regional Transport Authority which is a statutory body exercising statutory

functions. In this capacity he exercises many of the powers under the Motor Vehicles Act. The District Information Officer functions according to the instructions and guidance given by the Collector. The Collector is also a member of the District Recruitment Board of which a member of a Public Service Commission is the Chairman, and he is thus associated with the process of selection of candidates for appointments to certain categories of posts under Government. The Collector is also made responsible for the National Small Savings collection and the collections to the State Loans and the National Defence Fund. He is also the Chairman and member of a large number of committees and organisations functioning at the District level. A list of such committees and organisations which is given below will illustrate the variety of miscellaneous responsibilities which the Collector has to shoulder.

	Name of Committee	Office held by the Collector
1	Harbour Advisory Committee	Member
2	Telephone Advisory Committee	"
3	Red Cross Society	Chairman
4	Committee for Rehabilitation of Goldsmiths	"
5	District Development Council	"
6	Regional Transport Authority, Ernakulam	"
7	Hospital Advisory Committee	"
8	District Advisory Committee for Harijan Welfare	"
9	District Prohibition Advisroy Committee	"
10	District Recruitment Board	Member
11	Traffic Co-ordination Committee for the Enforcement of Traffic rules	Chairman
12	Committee for Evaluation of Confiscated Weapons	"
13	District Defence Fund Committee	"
14	Public Relations Committee	"
15	District Sub-Committee for Youth & Student activities	"
16	District Sub-Committee for Amenities and Welfare	"
17	District Medical Committee	Ex-officio Chairman
18	District Committee for Supplies and Price Control	Member
19	Volunteer Service and Civil Defence	Chairman
20	District Sports Council	"
21	Merchant Navy Club	Member
22	Tagore Centenary Committee	"
23	City Savings Committee, Ernakulam	Chairman

It will be clear from the foregoing analysis that the functions and responsibilities of the Collector are many and varied. His position is more than one of *primus inter pares*.

It is even more than that of the captain of a team. While guiding the activities of the other Departments, he has to exhibit a great amount of patience, tact and goodwill. All the activities of the Government in the District depend mainly on the Collector and the way he does it will determine its effectiveness and usefulness to the public.

District Development Council

With a view to ensuring the sustained interest of the people and making them give positive help and guidance to the Collector in the satisfactory discharge of his duties in the field of general administration various non-statutory bodies consisting of official and non-official members have been set up in all Districts of Kerala. The most important of such bodies is the District Development Council with the Collector as Chairman. The Ernakulam District Development Council consists of official and non-official members. The official members of the Council are the District Officers of the various Departments of Government. The non-official members include all M.L.As and M.Ps from the District, the Chairmen of Municipalities, and representatives of the Co-operative movement, Panchayats, Social Service Organisations, Trade Unions, Political Parties, Harijans and other special interests. The Personal Assistant to the Collector is the Secretary of the Council. The functions of the Council include (1) advising on the formation of the annual plan of development for the District within the general framework of the State Five Year Plan (2) reviewing progress in the implementation of approved programmes of development (3) recommending measures for the effective and speedy fulfilment of schemes of economic and social development, and more especially of national extension and community projects, agricultural programmes, local development works, social services and village industries (4) promoting public co-operation and participation in development programmes and expanding local community effort both in urban and rural areas (5) assisting the development of Co-operaitves and Village Panchayats (6) promoting the small savings movement (7) supervising the work of Village Panchayats in respect of land reforms, and management and rural development generally (8) enlisting the active association and co-operation of teachers, students and others in the study and development of local resources (9) providing opportunities for general education

through fairs, exhibitions, seminars etc. and (10) training of members of Panchayats and Co-operatives.

The meetings of the District Development Council were held once in a month till recently in order to review the progress of the works. However, following the declaration of Emergency in the country by the President of India in October 1962 Government issued orders that as a measure of economy the District Development Councils need meet only once in two months. The agenda of the meeting and the progress reports are distributed among the members in advance. The non-official members make detailed enquiries about the progress of the works and the District Officers supply them with the requisite information. Each item of work to be undertaken is placed on the agenda at the request of the official members and a general discussion takes place. Till recently there were also Sub-Committee of the District Development Council formed for specific purposes, but they have since been dissolved in the wake of the Emergency.

Block Development Committees

The Block Development Committee is constituted in each Block to advise and help the Block Development Officer in carrying out the development works of the Block area. Originally constituted in 1957 as Block Advisory Committees, the Block Development Committees, as they are now called, consist of (1) M.L.As and M.Ps. representing the Block area (2) representatives of Panchayats not exceeding seven in number (3) two Social Workers including a woman (4) one representative of the Social Welfare Board (5) one representative of the Bharat Sevak Samaj (6) the Chairmen of the Municipalities falling within the Block area (7) two or three prominent non-officials whose association with the Committee would be beneficial and (8) one representative of the Harijans. The Tahsildar of the Taluk is also a member of the Block Development Committee. The Revenue Divisional Officer of the area concerned is the Chairman and the Block Development Officer, the Convener of the Committee. The Committee meets every month to review the progress of the activities connected with the implementation of Plan Schemes, especially in the fields of Agriculture, Minor Irrigation, Co-operation and Panchayats. The agenda for the meetings of the Block Development Committee includes

the presentation by the Block Development Officer of a report on the activities of the previous month and a general discussion of the same by the members. The successful implementation of the developmental programmes depends to a large extent on the enthusiasm and co-operation of the members of the Block Development Committees.

District Recruitment Board

In pursuance of the recommendations of the Administrative Reforms Committee (1958), a District Recruitment Board for each of the nine Districts of Kerala was constituted with a member of the Public Service Commission as Chairman and the District Collector as member. The District Recruitment Board, Ernakulam, began functioning in 1959. The function of the Board is to make selection for the following categories of posts in the public services of the State:—

1 All posts on a pay of Rs. 35 or less

2 Non-technical posts for for which the minimum educational qualification is lower than a pass in the S. S. L. C. Examination.

3 Minor technical posts such as drivers, fitters, mechanics, boatmen etc., even though the minimum pay attached to them may be above Rs. 35

There are more than 400 categories of posts belonging to the various Departments in the list of posts ear-marked for recruitment through the District Recruitment Board. The selections made by the District Recruitment Board are treated as those made by the Public Service Commission. The general rules followed by the Kerala Public Service Commission as well as the rules of procedure of the Kerala Public Service Commission and the Kerala State and Subordinate Rules (1958) are generally applicable to the selections of the District Recruitment Board. The recruitment to posts is made by the Board after interviewing the candidates. The particulars of the number of candidates advised by the District Recruitment Board, Ernakulam, for recruitment during each of the years from 1959-60 to 1962-63 are given below:-

Year	Number of Candidates
1959-60	26
1960-61	280
1961-62	373
1962-63	284

State Government Offices

A good number of State Government offices function in Ernakulam at the District or regional level. Administratively they are under the control of their respective Heads of Departments. The functions of the most important District offices are given in the relevant Chapters. A list of chief officers functioning in Ernakulam District is given below:—

1 District and Sessions Judge, Ernakulam
2 Superintendent of Police, Ernakulam
3 Industrial Tribunal, Ernakulam
4 State Transport Appellate Tribunal
5 Regional Joint Director of Industries and Commerce, Ernakulam
6 Regional Deputy Director of Public Instruction, Ernakulam
7 Deputy Director of Fisheries, Ernakulam
8 Deputy Commissioner of Agricultural Income-tax and Sales-tax, (Central Zone), Ernakulam
9 Deputy Director of Panchayats, Ernakulam
10 Senior Town Planner, Ernakulam
11 Superintending Engineer, P. W. D., Central Circle, Buildings and Roads, Alwaye
12 Revenue Divisional Officer, Moovattupuzha
13 Revenue Divisional Officer, Fort Cochin
14 Deputy Registrar of Co-operative Societies, Ernakulam
15 District Welfare Officer, Ernakulam
16 District Veterinary Officer, Ernakulam
17 District Indigenous Medical Officer, Ernakulam
18 Assistant Director of Fisheries, Ernakulam
19 District Agricultural Officer, Ernakulam
20 Assistant Superintendent, Government Press, Ernakulam
21 District Inspector of Weights and Measures, Ernakulam
22 Assistant Excise Commissioner, Ernakulam
23 Assistant Secretary (Law), Agricultural Income Tax and Sales Tax, Ernakulam
24 Inspecting Assistant Commissioner of Agricultural Income Tax and Sales Tax, Ernakulam
25 District Treasury Officer, Ernakulam
26 District Registrar, Ernakulam
27 District Educational Officer, Ernakulam
28 Divisional Employment Officer, Employment Exchange, Ernakulam
29 District Statistical Officer, Ernakulam
30 District Medical Officer, Ernakulam
31 District Industries Officer, Ernakulam
32 District Panchayat Officer, Ernakulam
33 Inspector of Local Fund Accounts, Ernakulam
34 Executive Engineer, Public Health, Ernakulam
35 District Information Officer, Ernakulam
36 Executive Engineer, B & R, Ernakulam
37 Executive Engineer, Irrigation, Ernakulam

38 District Transport Officer, Ernakulam
39 District Transport Officer, Alwaye
40 District Labour Officer, Alwaye
41 Inspector of Boilers, Alwaye
42 Executive Engineer, Public Health, Alwaye
43 District Educational Officer, Alwaye
44 District Educational Officer, Moovattupuzha
45 Executive Engineer, B & R, Moovattupuzha
46 Divisional Forest Officer, Malayattur, Kodanad

Central Government Offices

The most important of the Central Government Offices or Officers functioning in the District are the following:-

1 Collector of Customs & Central Excise, Cochin
2 Deputy Director, Offshore, Fishing, Cochin
3 Assistant Engineer, C.P.W.D., Ernakulam
4 Cashewnuts & Spices Development Officer, Ernakulam
5 Cashew Export Promotion Council, Ernakulam
6 Coir Board, Ernakulam
7 Commissioner of Income Tax, Ernakulam
8 Income Tax Officer (Hqrs), Ernakulam
9 Assistant Collector, Customs, Ernakulam
10 Inspecting Assistant Commissioner of Income Tax, Ernakulam
11 Deputy Chief Controller of Exports & Imports, Ernakulam
12 Appellate Assistant Commissioner of Income Tax, Ernakulam
13 Income Tax Officer, Special Survey Circle, Ernakulam
14 Assistant Controller of Estate Duty, Ernakulam
15 Indian Central Coconut Committee, Ernakulam
16 Spices Export Promotion Council, Ernakulam
17 Sub-Recruiting Office, Ernakulam
18 Assistant Regional Manager, State Trading Corporation of India, Ernakulam
19 Press Information Bureau, Ernakulam
20 Registrar of Companies, Ernakulam
21 Engineer & Ship Surveyor, Mercantile Marine Department, Ernakulam
22 Aeronautical Communications Officer, Civil Aviation Office, Willingdon Island
23 Assistant Controller of Coir Exports, Willingdon Island
24 Assistant Director (Clearance), Ministry of Food & Agriculture, Willingdon Island
25 Assistant Director (Food) Willingdon Island
26 Technical Officer, Central Drug Standard Control Organisation, Willingdon Island
27 Controller of Customs & Central Excise, Willingdon Island
28 Mercantile Marine Department, Naval Base, Willingdon Island
29 Garrison Engineer, Naval Base, Willingdon Island
30 Port Health Officer, Willingdon Island
31 Chairman, Cochin, Port Trust, Willindon Island
32 Tourist Office, Government of India, Willingdon Island
33 Assistant Garrison Engineer (B & R), Outstation, Alwaye
34 Income Tax Office, Alwaye
35 Deputy Armament Supply Officer, Alwaye

CHAPTER XI

REVENUE ADMINISTRATION

Land Tenures

The land tenures prevailing in the District may be considered under two heads, viz., Cochin tenures and Travancore tenures.[1] The main tenures in the erstwhile Cochin area are (1) *Pandaravaka Verumpattom* (2) *Pandaravaka Kanam* (3) *Puravaka or Janmom* and (4) *Inam.* Those prevailing in the erstwhile Travancore area are (1) *Pandaravaka* (2) *Janmivaka* or *Janmom* (3) *Janmivaka Thanathu* and (4) *Janmivaka Kanam.* The extent of land under each of these tenures in the District is given below.

Area under different Tenures, 1963

Tenure	Nilam Extent			Paramba Extent			Total Extent		
	A	C.	Sql.	A	C.	Sql.	A.	C.	Sql.
Pandaravaka Verumpattom	34,396	72	293	31,997	71	929	66,394	44	222
Pandaravaka Kanam	3,542	87	462	5,594	16	646	9,137	04	108
Puravaka or Janmom	18,608	98	000	26,678	46	160	45,287	44	160
Inam	4,342	97	000	3,544	29	350	7,887	26	350
Pandaravaka	57,162	87	641	148,124	98	84½	205,287	85	725½
Janmivaka	7,387	80	000	4,441	48	000	11,829	28	000
Janmivaka Tanathu	11,305	59	543	8,167	76	712	19,473	36	235
Janmivaka Kanam	11,845	43	451	7,081	14	421	18,926	57	872

We may briefly mention the salient features of the different kinds of tenures. *Pandaravaka* means lands belonging to *Bhandaram* or state exchequer, and *Puravaka* denotes

1 The history of the origin and growth of the tenures is given in the corresponding Chapters in the Trivandrum and Trichur District Gazetteers.

lands which are the private property of landlords or *Janmis*. *Pandaravaka* lands or *Sirkar* lands are those which in process of time became vested in the Government by conquest, escheat or otherwise. They form the bulk of the Government lands in the Cochin area. The tenants living in the lands under this tenure are known by the name *Pandaravaka* tenants. There are various kinds of subordinate tenures under *Pandaravaka*, the most important being *Verumpattom* and *Kanam*. *Verumpattom* is a simple lease redeemable at pleasure. Under *Pandaravaka Verumpattom* the tenure is fixed as one-half of the net produce arrived at after taking the average yield for the past twenty years prior to the settlement and making certain deductions thereupon and converting the net produce in money at 4 As. 7 Ps. per standard para of paddy. The assessment so fixed is treated as the full assessment of the land. The *Verumpattom* becomes a *Kanam* lease when the *Janmi* acknowledges liability to pay a lump sum known as *Kanam* amount to the tenant on the redemption of his lease. *Kanam* lease was generally created by the *Janmi* borrowing money from his tenant to meet any extraordinary expenditure. *Pattom* was fixed in kind for the land and it was called *Kana Pattom*. After deducting interest in kind on *Kanam* amount from *Kana Pattom*, the balance was payable as *Michavaram*. Besides *Michavaram*, *Onakazhcha* and *Puravaka* dues were payable by *Kanam* tenants to their *Janmis*. After demising the land on *Kanam*, if the *Janmis* required further loan, the same was raised by subsequent mortgage known as *Puramkadam*. But if the tenant is not willing to pay the further amount, the *Janmi* may give a *Melcharth* to some other person authorising him to redeem the previous mortgage and hold the property for a period of 12 years. The *Kanamdar* was entitled to the undisturbed enjoyment of the land for twelve years. At the end of the period the *Janmi* may terminate the lease by paying the *Kanam* amount and the value of the improvements effected by the tenant or it may be renewed by the tenant paying a renewal fee to the landlord. Lands under *Pandaravaka Kanam* are treated as lands held under favourable tenure. The State's demand on lands of this category has been fixed at two-thirds of that of *Pandaravaka Verumpattom* lands. *Puravaka* or *Janmom* is also treated as favourable tenure. The assessment on this kind is one-half of that of *Pandaravaka Verumpattom* lands. *Inam* lands are also held under favourable tenures. *Inam* is a perpetual lease granted

for services rendered and is known by different names according to the caste status of the grantees. If the grant is made to a Brahmin it is called *Santati Brahmaswom*; if it is made to a non-Brahmin of a caste equal or superior to that of a grantor it is called *Anubhogam* or *Saswatham* and if it is to a person of inferior caste *Adima* or *Kudima*.

In the Travancore area also the bulk of the lands come under *Pandaravaka*. These lands belong to the Government. They are subject to full taxation with full assessment. The extent of *Janmom* lands in this area is not very much. The *Janmom* lands are the absolute private property of the owner and have been generally tax-free. They belong to *Devaswoms* or *Brahmaswoms* and Government do not hold any right over them. They are divided as *Janmivaka Thanathu* and *Janmivaka Kanam*. Till the introduction of basic tax lands under *Janmivaka Thanathu* were tax free, but assessed when demised on *Kanam*, *panayam* or money consideration. Lands under *Janmivaka Kanam* were also termed as *Kanam* and *Attipperu*. Both these categories of lands were later subject to a uniform rate of basic tax.

In addition to the *Pandaravaka* lands of which the State is the owner or landlord but have transferred its rights to the ryots, there are *Poramboke* or *Tharisu* lands which are entirely at the disposal of the Government. The acreage under *Poramboke* and *Tharisu* in each Taluk in 1963 is given below:—

Taluk	Poramboke			Tharisu		
	A.	C.	Sql.	A.	C.	Sql.
Parur	6,961	91	000	377	94	506
Alwaye	16,465	63	954	417	89	624
Kanayannur	16,357	58	004	761	54	500
Kunnathunad	14,627	33	790	2,887	53	835
Moovattupuzha	9,997	95	563½	12,671	63	000
Thodupuzha	5,474	60	000	25,089	56	000
Cochin	12,615	25	000	91	82	000

Edappilli Edavaka and Cheranelloor Estate

It may be relevant in this context to refer to the erstwhile Edappilli *Edavaka* and Cheranelloor Estate. The term *Edavaka* meant any tract or area recognised by the Government as such which was exempt from payment of Land Tax. A portion of the Edappilli *Edavaka* fell within the jurisdiction

of this District. The villages of Edappilli North and Edappilli South in Kanayannur Taluk, Vazhakulam in Kunnathunad Taluk, Thrikkunnapuzha in Karthigappally Taluk and Kallooppara in Thiruvalla Taluk (Alleppey District) were the places included in the Edappilli *Edavaka*. The main duty of the Government regarding the *Edavaka* was to keep the boundary stones properly. All the unassessable lands set apart for public purposes within the boundaries of the *Edavaka* and all the *Thanathu* within the *Edavaka* were Government lands. The chief of the *Edavaka* had all rights of revenue including Land Tax and the rights to get Abkari revenues from the villages comprising the *Edavaka*. By the introduction of the Edavaka Rights Acquisition Act (Act XXVII of 1955) these rights were taken by the Government on payment of compensation and the *Edavakas* are now defunct. The Chief of the Edappilli *Edavaka* has now only the position of a *Janmi*.

The Cheranelloor Estate which belongs to the family of Karthas falls within the jurisdiction of this District. The family of the Cheranelloor Kartha in Cheranelloor village of Kanayannur Taluk was an old and reputable one with vast resources and having close friendship with the Cochin royal family. But due to continued misrule by the members of the family, the Maharaja of Cochin was requested to take over the management of the family and Estate properties. The erstwhile Cochin Government by Proclamation V of 1117 dated November 29, 1941 of the then Cochin Maharaja, assumed management of the Estate along with the three temples belonging to the Estate on condition that during the period of Government management the Government would have all preliminary powers for alienation of properties etc. and would do everything necessary for the efficient administration and management of the Estate and also that on requisition made by a majority of the adult members of the Swaroopam, the management of the Estate would be restored to the Swaroopam. The District Collector has been entrusted with the management of the Estate. A Manager with a ministerial and executive staff has also been appointed under the supervision of the Tahsildar, Kanayannur. The Estate owns 1758.46 acres of lands scattered in ten villages. The lands are under the possession and enjoyment of tenants under different tenures such as *Kanom*, *Adima*, *Anubhogom*, *Verumpattom* etc. The Estate

has no *thanathu* possession. The number of tenants now estimated will come to more than 5,000 due to partition, sale etc. among them. There were 48 members in the Estate family when the Government assumed management. Now there are 71 members in the Swaroopam including women and children. All the expenditure relating to the Estate is met from the Estate Fund, for which a personal Deposit Account has been opened in the Treasury. The District Collector is the Controlling Officer in respect of Estate Funds.

Survey and Settlement

Land revenue was levied for the first time in the Cochin area in 1762. In that year the Zamorin was expelled from Cochin territory, the local chiefs were deprived of their administrative and military powers and the administration was placed in the hands of officers appointed by the Raja. As the income from the existing sources was not sufficient to provide funds for the maintenance of the new administrative establishments as well as of the standing army, a general land tax was levied in 1761-62 on a limited scale. An additional tax was levied in 949 K.E. (1773-74 A.D.) in order to meet the expenditure arising from the payment of four lakhs of rupees to Mysore by Cochin following Haider's conquest of Malabar. After Cochin became tributary to Haider in 957 K.E. (1781-82 A.D.) the rates of assessment were revised to meet the increased demand. Since then there had been frequent settlements of land revenue, some general and others piecemeal. All these settlements were *Kettezhuthus* or records made out of what was heard. They were conducted in a haphazard manner and the revenue accounts were not maintained properly. In May 1814 Col. Munro issued a *Hukmnama* containing detailed instructions for the inspection and assessment of *Nilams* and *Parambas* throughout Cochin State in a systematic manner[1]. The *Kandezhuthu* of *Parambas* according to the principles laid down in the *Hukmnama* was started in 990 K. E. (1814-15 A. D.) and that of *Nilams* in 996 K. E. (1820-21 A.D.). The *Parambas* containing taxable trees were assessed with a *Payattupattam* or pea tax. The trees treated as taxable were the coconut, arecanut, palmyrah and jack. *Kandezhuthus* (records of what was seen) of

1 The assessable lands were divided into two classes *Nilams* and *Parambas*. The former consisted of all lands which were levelled, bunded and adopted for the cultivation of paddy and the latter of lands adopted for the cultivation of crops other than paddy.

Parambas were carried out in 1012 K.E. (1836-37AD.) and 1032 K.E. (1856-57) also as there had been a steady increase in the planting of coconut and arecanut trees and in the cultivation of dry crops. The *Kandezhuthu* of wet lands (*Nilams*) which was started in 996 K.E. (1820-21) embraced all the wet lands then under cultivation. The lands were not actually measured but only their seed capacity was noted down. Inexperience of officers, the complicated nature of the land tenures and the complexity of the procedure adopted led to discrepancies in the accounts. There were also some vexatious imposts payable by the ryots which were relics of the past. The accounts maintained after the *Kandezhuthu* settlement were also unsatisfactory. The extent of lands given therein was not accurate. No arrangements had been made for proper recording of transfers or divisions of holdings and thus bringing the accounts up-to-date. Consequently land revenue administration deteriorated.

The idea of a scientific survey of land to be followed by a revision of assessment with reference to the actual extent of the lands and their productive capacity therefore engaged the attention of the Cochin Government. A Survey Regulation (Regulation II of 1074) (1898-99) was passed and a series of rules were framed laying down the principles of procedure to be followed in demarcating fields. The Cadastral Survey in Cochin was started in the same year. The survey of the Kanayannur Taluk was completed in 1075 K.E. (1900 A.D) and that of Cochin in the next year. The preparation of land registers, field measurement books, village maps and other final survey records also kept pace with the progress of the field work. The revision survey of accretion lands in Cochin Taluk was also undertaken simultaneoulsy. The survey was on the whole conducted in an excellent manner. The survey fields were made sufficiently small by triangulation process, the block system being abandoned. Individual holdings were separately demarcated with stones and triangulated. Even comparatively minor bends were recognised for purposes of demarcation. Each landholder was given the metes and bounds of his holdings, thus saving a lot of land disputes. The survey work was wound up in 1083 K.E. (1908A.D).

The official survey records of Kanayannur Taluk were ready by the middle of 1079 (January 1902) and the settle-

ment work was taken up in right earnest on the basis of the Settlement Proclamation of 27th Kumbham 1080 (10th March 1905). The salient features of the settlement were the following. The full State demand on *Pandaravaka Nilams* was fixed at half the net produce which was arrived at by determining the gross produce in paddy after scientific classification of soils by chemical and physical analysis and by crop experiments and by making therefrom liberal deductions on account of vicissitudes of season, cultivation, expenses etc. The State demand on *parambas* planted with coconut , arecanut and jack trees was fixed with reference to the number of such trees subject to a maximum of 60 in the case of coconut trees and 480 in the case of arecanut trees to an acre. The coconut trees were charged at rates varying from 1 anna to 3 As. 6 Ps. and the areca and jack trees at uniform rates of 4 Ps. and 4 As. respectively. Full proprietary right in soil was conferred on holders of *Pandaravaka Verumpattom* and *Kanam* lands. The State demand on *Puravaka* lands was fixed at half of the full or *Pandaravaka* rate in the case of *Nilams* and at one-fourth in the case of *Parambas*. The settlement was made with the *Janmis* and not with their tenure holders. The *Pandaravaka Kanam* lands were assessed at two-thirds of the full or *Pandaravaka Verumpattom* rates and the system of periodical renewals and recognition of *Kanam* debts was done away with. All land holders were given *pattas* showing details of all lands registered in their names with particulars of assessment due from them. The settlement was declared to be effective for a period of 30 years to begin with.

In Travancore the first settlement of which there is any record is that of 948 K.E. (1772-73 A.D.). It embraced both *Nilams* and *Parambas*, but being a *Kettezhuthu* it was not accurate. The next settlement was in 978 K.E. (1802-03), i.e., 30 years later. The new settlement was a *Kandezhuthu*. During both these settlements an estimate was made of the seed capacity of each field in terms of para and area and assessment on each field was fixed on the basis of this estimate. There were further settlements in 993 K.E. (1818 A.D.) and 1012 K.E. (1837 A.D.). These early settlements were not based on any uniform principle and numerous and varying rates were assessed on each kind of tree in each Taluk. In accordance with the Settlement Proclamation of Kumbham 1061 (February

1886) a survey and settlement of the whole State of Travancore was undertaken. The main features of the new survey and settlement were accurate measurement, demarcation, mapping out, valuation of properties of every description and registration of titles as the basis of sound revenue administration[1].

We may also refer in this connection to the different systems of survey adopted in the Travancore area of the District for purposes of revenue settlement. From 1064 K.E. (1888-89) to 1073 K.E. (1897-98) the Parur Taluk and parts of Moovattupuzha and Kunnathunad were surveyed under the system of "Baseline and Offsets" according to which, unlike in the earlier Tak system, a distinction was made between survey fields and revenue fields. Certain modifications were made in this system in 1074 K.E. (1898-99) and parts of Kunnathunad and Moovattupuzha Taluks were surveyed under the modified system. The Thodupuzha Taluk was surveyed from 1078 (1902-03) to 1081 K.E. (1905-06) under the system of "Triangles and Offsets". Under this method, unlike in the Tak and Baseline and Offsets systems, the survey fields were split up into large triangles by lines running from trijunction to trijunction as far as possible and offsets taken up to the bend and the sides of survey fields and revenue fields within each. The survey field was made capable of individual plotting.

It may be stated in this connection that the Superintendent, Survey and Land Records, Ernakulam, is the officer responsible for the survey operations and the maintenance of land records in the District. His office functions as a part of the District Collector's establishment but it is under the technical control of the Director of Survey and Land Recrods.

Basic Tax

After the settlement of 1886 A.D. in Travancore and that of 1905 A.D. in Cochin no attempt was made at a comprehensive resettlement in either of these States. In Travancore the Government gave up the entire idea of a resettlement and introduced a new system of land tax. This tax known as the 'basic tax' was introduced by the famous Land Tax Proclamation issued by the Maharaja of Travancore in 1121 K.E.(1945-46). In 1955 the Travancore-

1 For details see *Trivandrum District Gazetteer* pp. 561-64 and *Quilon District Gazetteer* pp. 499-502.

Cochin Land Tax Act was passed by which the basic tax was extended to the Cochin area also. The introduction of basic tax served more or less the purpose of a general revenue settlement. According to this system all lands, irrespective of the nature of the tenures, the kinds of crops raised or the actual yield from them, were subject to a basic tax at the rate of 2 paise per cent. The table given below shows the area of land assessed to basic tax in the various Taluks of the District and the revenue derived from them in 1961-62.

Land assessed to Basic Tax

(1961-62)

Taluk	Area on which basic tax is levied									Total Basic Tax
	Nilam			Purayidam			Total			
	A.	C.	Sql.	A.	C.	Sql.	A.	C.	Sql.	Rs.
Parur	19,843	23	313	20,768	87	000	40,612	10	313	81,356.91
Alwaye	30,153	63	501	33,589	82	920	63,743	46	421	125,313.30
Kanayannur	25,255	66	62	37,454	53	003	62,710	19	065	125,527.38
Kunnathunad	39,028	07	238	58,348	91	637	97,376	98	875	195,218.21
Moovattupuzha	36,034	57	806	104,234	09	278½	140,268	67	084½	280,796.95
Thodupuzha	9,757	55	869	75,608	91	024	85,366	46	893	170,907.14
Cochin	9,201	01	000	12,471	68	000	21,672	69	000	43,361.12

Based on the Census of 1961 the incidence of taxation per head on the net Ayacut demand was 0.80 nP. It may be mentioned in this connection that the levy of basic tax was discontinued in Kerala following the invalidation of the Kerala Land Tax Act (1961) by the Kerala High Court in 1962. However, consequent to the enactment of the Constitution Seventeenth Amendment Act (1964) which includes the Kerala Land Tax Act (1961) in the Ninth Schedule to the Constitution the system of Basic Tax has been reintroduced.

Plantation Tax

The Kerala Plantations (Additional Tax) Act 1960 came into force on April 1, 1960. According to this Act all holders of Plantations, irrespective of their capacity, as owners, tenants, mortgagees, trustees, receivers, managers or in any other capacity are liable to pay, in addition to the

basic tax, a plantation tax at the following rates specified in the schedule of the Act.

	Extent	Rate
1	Where the aggregate extent of plantations held by a person is below five acres	Nil
2	Where the aggregate extent of plantations held by a person is below five acres or more	Nil
	(a) on the first two acres	Nil
	(b) on the remaining extent	Rs. 8 per acre

It may be noted that 'Plantation' for the purpose of this Act includes coconut trees, arecanut trees, rubber, coffee, tea and cardamom plants and pepper vines. The extent of plantations held by a person may ordinarily be revised at the end of five years. The following table shows the amount of assessment in each of the Taluks of the District during the period 1963-64.

Plantation Tax Assessment

(1963-64)

Taluk	Demand Rs.	Collection Rs.
Total	3,09,119.63	2,38,564.54
Kanayannur	19,356.68	17,189.61
Cochin	16,088.42	13,246.23
Parur	27,990.03	21,965.03
Alwaye	10,865.80	4,766.56
Kunnathunad	13,824.96	8,260.36
Moovattupuzha	82,231.92	55,087.46
Thodupuzha	1,38,761.82	1,18,049.29

Irrigation Cess

Irrigation cess is collected on a small scale from this District at the following rates.

1	Single crop lands converted to double crop	Rs. 6 per acre
2	Existing wet lands	Rs. 5 per acre
3	New conversion for single crop	Rs. 6 per acre
4	New conversion for double crop	Rs. 10 per acre

The demand and collection under Irrigation Cess in the concerned Taluks (1963-64) are given below.

Irrigation Cess Assessment
(1963-64)

Taluk	Demand Rs.	Collection Rs.
Total	**10,23,872.87**	**1,34,632.32**
Parur	1,16,054.91	23,884.66
Alwaye	7,39,600.62	2,22,495.47
Kunnathunad	1,24,015.65	60,946.69
Moovattupuzha	44,201.69	27,305.50

Building Tax

A tax on buildings, the floor area of which is 1,000 sq. ft. or more and the construction of which has been completed subsequent to March 2, 1961 is being levied from March 1961 according to the Building Tax Act 1961. The rates of tax are given below.

Less than 1,000 sq. ft.	Nil
1,000 to 2,000 sq. ft.	10 nP.
2,001 to 4,000 sq. ft.	20 „
4,001 to 8,000 sq. ft.	30 „
8,001 to 12,000 sq. ft.	40 „
Above 12,000 sq. ft.	50 „

A Taluk-wise statement of the demand and collection under Building Tax in the Ernakulam District for the year 1963-64 is given below.

Demand and Collection under Building Tax
(1963-64)

Taluk	Demand Rs. nP.	Collection Rs. nP.
Total	**2,76,553.67**	**1,98,925.50**
Kanayannur	1,17,086.41	72,003.39
Cochin	44,893.46	29,764.96
Alwaye	16,280.03	10,632.79
Kunnathunad	15,711.34	15,712.37
Parur	30,048.70	21,757.63
Moovattupuzha	33,303.60	30,994.82
Thodupuzha	19,230.13	18,059.54

It may be mentioned that buildings owned by the State Government, Central Government or any local authority and buildings used principally for religious, charitable or educational purposes or as workshops are not assessable to building tax under Section 3 (1) and (2) of the Act. The

Tahsildar is the assessing authority and the Revenue Divisional Officer the appellate authority.

Land Assignment

According to the scheme for assignment of Government lands, *Poramboke* lands in each village are classified as lands to be reserved for Government purposes and lands to be assigned under the Kerala Land Assignment Rules (1964.) At least 25 per cent of the total *Poramboke* lands are reserved for future Government purposes. The total extent of land available for registry in this District comes to 22,526 acres. Applications from persons for assignment of land under the scheme are disposed of by the Taluk Land Assignment Advisory Committees constituted by the Government. Each Taluk Advisory Committee consists of five members which include four non-officials and the Tahsildar who is the Chairman and Convener of the Committee. The non-officials represent the major political parties or organisations like the Kisan Congress, the Kisan Sabha or the Karshaka Sanghom. The assignment cases are placed before the Committee by the Chairman with connected sketches and *Mahazars*. The opinion of the Public Works Department is obtained and placed before the Committee in cases of road or river *Porambokes*. In certain cases the members of the Committee conduct local inspection before taking decisions. The decisions are usually taken by majority vote. The Tahsildar himself can dispose of cases in which the land in question is under the occupation of the applicant. The following table will give an idea of the progress of land assignment work in each Taluk of the District till June 1963.

Area of Land Assigned till June 1963

Taluk	Total area available for registry			No. of applications received	Area assigned till June 1963			Number of assignees
	A.	C.	Sql.		A.	C.	Sql.	
Total	**22,526**	**46**	**871**	**38,065**	**4,560**	**16**	**532**	**4,723**
Thodupuzha	7,659	21	440	9,173	1,780	22	200	1,270
Kunnathunad	5,495	00	000	6,590	717	44	150	918
Moovattupuzha	5,440	21	000	9,851	1,441	1	880	.1,077
Alwaye	2,568	00	000	3,983	449	87	774	710
Parur	463	99	181	2,552	122	39	882	546
Cochin	228	78	250	3,136	15	52	600	90
Kanayannur	665	87	000	2,780	31	68	046	112

1 The Kerala Building Tax Act was struck down as unconstitutional by a judgement of the Kerala High Court in 1964-65.

With the coming into force of the Kerala Government Land Assignment Act 1960 (Act 30 of 1960), the assignment of Government lands is now governed by the Kerala Land Assignment Rules (1964).

Land Acquisition

The Kerala Land Acquisition Act (1961) was brought into force on April 4, 1963. In the work of land acquisition the District Collector, Ernakulam, is assisted by a Deputy Collector (Land Acquisition) who is functioning as Personal Assistant to the Collector. The two Revenue Divisional Officers are also functioning as Land Acquisition Officers within their respective jurisdictions. The Tahsildars have been empowered to pass awards in cases of acquisition of land on payment of nominal compensation. There are also two Special Deputy Collectors in this District, one at Kalamasserri and the other at Ernakulam, in order to attend to the land acquisition work in the industrial area at Kalamasserri and the area for the Oil Refinery being set up in Cochin. The land acquisition work connected with the Periyar Valley Irrigation Scheme is being attended to by the Special Tahsildar at Perumbavur and the Special Tahsildar at Moovattupuzha. The Special Tahsildar, Harijan Welfare, Ernakulam, who exercises jurisdiction over the Districts of Ernakulam, Alleppey and Trichur is in charge of the land acquisition work of the Harijan Welfare Department in the District. Moreover, the Special Tahsildar attached to the Ernakulam Municipality is responsible for the land acquisition work within the Ernakulam municipal limits.

Land Reforms

The land reforms in the District may be considered under four heads:—those of Cochin, Travancore, Travancore-Cochin and Kerala. One of the earliest measures introduced in Cochin was a royal writ (*Theettooram*) in 1038 K.E. (1863 A.D) preventing eviction of *Kanam* tenants before a period of twelve years. The Cochin Tenancy Act of 1090 K.E. (1914-15 A.D) was another important measure and it granted fixity to those who took *Kanam* holdings before 1885. It also made provision for the payment of compensation for improvements, fixation of renewal fees at 27½ per cent of the *Kanam* amount and 15% of the *Puramkadam*, eviction of *Kanam* tenants on the expiry of the period of lease for bona fide purposes of the landlord etc. The

Cochin Tenancy Act of 1938 which substituted the Cochin Tenancy Act of 1915 conferred security of tenure on new *Kanams*, i.e., those which originated between 1885 and 1915. The Act also restricted the grounds for eviction of the *Kanam* tenants and limited the renewal fee to 5% of the *Kanam* amount. Further, in order to protect the interests of the *Kudikidappukar* the Government of Cochin issued a proclamation on 7th June 1937 staying arbitrary evictions from their homesteads. Another important landmark in the history of land reforms was the Cochin Verumpattom Act of 1943 which protected the interests of tenants-at-will. The Act granted security of tenure to lessees and sub-lessees in respect of their holdings.

In Travancore the Pattom Proclamation of Edavam 21, 1040 K.E. (2nd June, 1865 A.D) is the earliest attempt at land reform. This Proclamation which has been hailed as the *Magna Carta* of the Travancore ryots enfranchised the Sirkar pattom lands and converted a large body of ryots from the position of mere tenants-at-will to that of full proprietors. It conferred on the ryots also fixity of tenure by checking arbitrary evictions of all kinds and by restricting the demand for exorbitant claims by the Government. The Proclamation of Karkadakam 25, 1042 K.E. (August 8, 1867 A.D.) was another far-reaching measure promulgated with a view to giving the tenants of the *Janmom* lands permanency of occupation rights and protection from indiscriminate eviction from lands. An important Act passed in 1068 K.E. (1892-93 A.D) laid down a legal procedure to safeguard the interests of land holders. The Janmi-Kudiyan Act of 1071 K.E. (1895-96 A.D) contained provisions relating to the rights and liabilities of *Janmis* and tenants in furtherance of the Proclamation of 1042. The next landmark in the history of land reforms is the Janmi-Kudiyan (Amendment) Regulation of 1108 K.E. (1932-33 A.D) which made the tenants the owners of lands subject to the payment of the *Janmi's* dues.

With the dawn of Independence land reforms received a great impetus. The Travancore-Cochin Government passed the Stay of Execution Proceedings Act in 1950 in order to give protection to the ryots from arbitrary eviction. According to the provisions of the Kanam Tenancy Act dated 1955 which applied only to the Cochin area the *Kanam* tenant became the sole owner of the *Kanam* property from

the commencement of the Act and the *Janmi* had the right to collect *Janmikaram* only. No special dues or *kazhchas* were to be paid by the tenant, and one of the main vestiges of feudalism was thus wiped out. The Kerala Stay of Eviction Proceedings Act (1957) stayed eviction of tenants, *Kudikidappukar* and certain other classes of persons cultivating land under various tenures. In 1958 was passed the Kerala Agriculturists Debt Relief Act which provided for clearing of debts incurred prior to June 1, 1940. The Kerala Compensation for Tenants Improvement Act of 1958 provided for due compensation to tenants at the rate of 15 times the net annual yield of trees planted by them and actual value for permanent structures put up by them. An important piece of land reform introduced in Kerala in recent years was the Kerala Agrarian Relations Act of 1960 which sought to fix the ceiling on the extent of land that could be held by a family or by any adult unmarried person and to guarantee to tenants fixity of tenure over their holdings and freedom from arbitrary eviction by landlords. The Act was, however, invalidated by the Kerala High Court in 1962. As a measure of immediate relief to tenants the Kerala Tenants and Kudikidappukar's Protection Ordinance was promulgated by the Governor in December 1962 and it was replaced by an Act of the Legislature in 1963.

The Kerala Land Reforms Act of 1963 (Act I of 1964) is another landmark in the history of Land Reforms.[1] The Act bans the creation of new tenancies, gives the tenant the right to purchase his owner's lands and puts a ceiling on the extent of land that can be owned by a family. Section 82 of the Act limits the ceiling area of land to 12 standard acres in the case of an adult unmarried person or a family consisting of not more than five members and to 12 standard acres plus one standard acre for each member in excess of five in the case of a family consisting of more than five members. In no case shall the ceiling area be less than fifteen acres and more than thirty-six acres in extent. For purposes of ceiling the standard acre for *nilams* and lands other than *nilam* is prescribed in the Act. The standard acre in this District means the extent of land specified below.

1 The Act has been included in the Ninth Schedule to the Constitution under the provisions of the Constitution 17th Amendment Act 1964.

Standard Acres of Nilams

Taluk	Double crop nilam (Acre)	Single crop nilam (acre)
1 Thodupuzha 2 Moovattupuzha 3 Cochin 4 Kanayannur	1.25	2.50
5 Kunnathunad 6 Alwaye 7 Parur	1.75	3.00

Lands other than Nilams

	Class of land	Standard acre
1	Garden	1.00 acres
2	Dry land principally cultivated with cashew	1.75 „
3	Other dry land	3.00 „
4	Palliyal land	3.00 „
5	Rubber plantation	2.25 „
6	Tea plantation	1.00 „
7	Coffee plantation	1.00 „
8	Cardamom plantation	1.50 „
9	Cinnamon plantation	1.50 „
10	Cocoa plantation	1.50 „

Plantations and certain other categories of land are exempted from the ceiling. The new measure, unlike the Kerala Agrarian Relations Act, would not affect the income being derived from land by the religious, charitable and educational institutions at the time of the passing of the Act. The Government in deference to the religious susceptibilities of the people have taken upon itself the responsibility to pay these institutions this income in perpetuity. This is one of the major points of difference between the Kerala Land Reforms Act and the Kerala Agrarian Relations Act. Another salient feature of the legislation is that it confers more relief on the small land holders than the Kerala Agrarian Relations Act. The Act also provides for the preparation of a register of *Kudikidappukars*. The *Kudikidappukars* are also given the right to repair or rebuild their house steads and get compensation for improvements, if asked to shift. The Act further contemplates the appointment of Land Tribunals and a Land Board.[1] Section 109 of

1 Notification constituting a Land Board and fifteen Land Tribunals to function with effect from April 1, 1964 has since been issued. There is one Land Tribunal for the Ernakulam District and it functions with headquarters at Ernakulam.

the Act envisages the constitution of an Agriculturist Rehabilitation Fund for rendering help by way of loans or grants to the persons adversely affected by the Act.

OTHER REVENUES

Stamps

The income from sale of stamps is another item of revenue to the State. Stamps are sold through the Government Treasuries in the District of which there are seven in number, viz., the District Treasury at Ernakulam and the Sub-Treasuries at Mattancherri, Alwaye, Moovattupuzha Parur, Perumbavur and Thodupuhza. The rates of stamp duty are fixed under the provisions of the Kerala Stamp Act 1959. There is demand for all kinds of stamps like Foreign Bills, Hundies, Special adhesive and share transfer stamps besides the usual non-judicial and judicial stamps and papers. The total value of each of the various kinds of stamps issued in this District during the year 1960-61 to 1962-63 is noted below.

	Item	1960–61 Rs.	1961–62 Rs.	1962–63 Rs.
	Total	**24,12,593.67**	**26,55,890.61**	**30,78,966.20**
1	Foreign bills and Hundies	37,465.97	30,198.63	33,161.00
2	5 nP. over printed stamps	43,613.55	1,09,275.70	1,79,534.50
3	Special adhesive	941.00	266.50	96.50
4	Share transfer	4,667.25	16,256 25	13,340.75
5	Non-judicial stamps and stamp papers	12,94,053.55	14,05,771.37	17,24,390.30
6	Judicial stamps and stamp papers	9,82,439.95	10,45,016.76	10,73,359.52
7	Copying papers	49.412.40	49,105 40	55,083.63

Agricultural Income Tax and Sales Tax

The Ernakulam District contributes about one-third of the State Revenue under Sales tax. There are nine Sales Tax Offices under the Inspecting Assistant Commissioner of which the three are situated in Mattancherri, two at Ernakulam and the remaining at Alwaye, Parur, Moovattupuzha and Thodupuzha. There are two Agricultural Income-tax Offices in the District, one at Alwaye and the other at Moovattupuzha.

There is a Deputy Commissioner for Sales Tax and Agricultural Income Tax at Ernakulam who is in charge of the Central Zone comprising Ernakulam, Kottayam and Trichur Districts. The administrative control over the Agricultural Income Tax Offices is vested in the Inspecting Assistant Commissioner, (Spl) Kottayam, who is exclusively in charge of Agricultural Income Tax.

The bulk of the revenue is from the Ernakulam and Mattancherri offices. There are two special Circles in these places dealing with assessees of turn-over exceeding Rs. 2 lakhs. Comparative figures of collection and expenditure from 1958 to 1964 are as follows.

	Collection		
Year	Sales Tax Rs.	Agri. Income Tax Rs.	Expenditure Rs.
1958-59	2,07,35,740.00	9,91,086.56	2,10,375.10
1959-60	2,84,08,508.12	8,00,095.41	2,36,668.64
1960-61	3,63,82,920.97	6,66,162.97	2,65,730.60
1961-62	4,21,17,224.59	6,29,984.16	2,86,832.06
1962-63	4,87,43,922.22	6,82,397.15	3,32,044.00
1963-64	5,67,77,903.43	6,78,770.78	3,45,284.31

Registration Department

The District Registrar's Office, Ernakulam, began functioning from June 1, 1962. Before the formation of the Ernakulam Registration District, the Sub-Registry Offices of Ernakulam, Cochin, Njarakkal, Kuzhuppilli, Sreemoolanagaram, Thrippunithura and Mulanthuruthi were under the District Registrar, Trichur and Sub-Registry Offices, Edappilli, Parur, Alwaye, Ankamali, Perumbavur, Kothamangalam, Thodupuzha, Moovattupuzha, Kuthattukulam and Aikeranad were under the District Registrar, Kottayam. One Sub-Registry Office was newly opened at Kanjar on June 1, 1962. There are 18 Sub-Registry Offices (18 Sub -Registrars) and one Chitty Auditor in this District. The names and the headquarters of the Sub-Registry Offices are given below.

Sub-Registry Offices in Ernakulam District

Name of Office	Headquarters
1 Thodupuzha	Thodupuzha
2 Kanjar	Kanjar
3 Aikeranad	Puthencruz

	Name of office	Headquarters
4	Perumbavur	Perumbavur
5	Moovattupuzha	Moovattupuzha
6	Kuthattukulam	Kuthattukulam
7	Kothamangalam	Kothamangalam
8	Alwaye	Alwaye
9	Ankamali	Ankamali
10	Parur	Parur
11	Edappilli	Edappilli
12	Cochin	Fort Cochin
13	Mulanthuruthi	Mulanthuruthi
14	Thrippunithura	Thrippunithura
15	Ernakulam	Ernakulam
16	Sreemoolanagaram	Sreemoolanagaram
17	Kuzhuppilli	Kuzhuppilli
18	Njarakkal	Njarakkal

The functions of the Registering Officer are registration and attestation of documents and the safe custody of the records. The District Registrar exercises the powers of the Collector under Sections 37 (2), 39 and 41 of the Kerala Stamp Act within the limits of his jurisdiction in regard to the instruments presented for registration to the Sub-Registrars in the District. As Registrar, he is responsible for the registration of marriages under the Special Marriage Act. This power has also been given to all Sub-Registrars. The District Registrar is also the Registrar of Societies under the Literary, Scientific and Charitable Societies Act (Act XII of 1955). The Sub-Registrar is the head of his office and is competent to register all documents pertaining to his Sub-District.

The statistics of the work done by the Registration Department in the District with details of the total receipts and expenditure for each of the years from 1958-59 to 1962-63 is given below.

Statistics of the work done by the Registration Department with total receipts and expenditure (1958-1963)

Year	Work done: No. of documents registered	No. of copies prepared	No. of searches made	Total Receipts Rs.	Total Expenditure Rs.
1958-59	41,290	3,546	2,825	3,53,377.42	1,97,891.81
1959-60	42,988	3,432	2,847	3,63,515.82	2,23,492.42
1960-61	50,930	4,617	4,746	4,58,767.14	2,20,127.87
1961-62	50,765	4,599	4,008	4,67,161.09	2,37,617.92
1962-63	49,964	4,893	5,090	7,04,929.45	4,66,368.00

Excise Revenue

The whole of the Ernakulam District forms the Ernakulam Excise Division and the Assistant Excise Commissioner, Ernakulam, is in charge of the Division. It is divided into 14 Excise Ranges for administrative convenience. Each Range is in charge of an Excise Inspector. The Ranges and jurisdiction are as follows:—

Range	Jurisdiction
Ernakulam Thrippunithura	Kanayannur Taluk
Mattancherri Njarakkal	Cochin ,,
Ankamali Alwaye	Alwaye ,,
Perumbavur Mamala	Kunnathunad ,,
Piravam Moovattupuzha Kothamangalam	Moovattupuzha ,,
Thodupuzha	Thodupuzha ,,

There are officials designated as Preventive Officers and Guards in each of the Ranges to assist the Excise Inspectors in their duties, viz., collection of Excise revenue and prevention and detection of crimes. The Range Inspector is mainly responsible for the maintenance and collection of Excise revenue and he is vested with the powers of a Tahsildar in respect of the Excise revenue.

The Assistant Excise Commissioner exercises the powers of a District Collector so far as the Excise Revenue is concerned. He supervises the work of the Range Excise Inspectors and also of the Distilleries and Pharmaceutical Laboratories in this Division.

Abkari Policy

The Excise Department exercises control over the manufacture, possession and sale of liquor and other excisable articles under the Excise laws. The privilege of vending liquor in independent shops is put to public auction year by year and the sale proceeds are collected in ten equal instalments during the course of the financial year. The privilege of dealing in liquors and other excisable articles for a specified period is also granted on fixed fee license system.

The major source of annual income is the rental fetched in the auction sale of *abkari* shops and excise duty collected half yearly on trees tapped for drawing fermented toddy.

The different categories of liquors which appear in the trade are toddy, arrack and Indian and foreign made foreign liquors.

Opium, Ganja etc.

It is the accepted policy of the Government to eliminate completely the use of Opium and Ganja from the country. The system of selling these items to the public from the licensed shops was stopped in 1958-59. A very few addicts who are badly in need of opium on medical grounds for their very existence are, however, supplied with the minimum quantity of opium on permits issued by the Assistant Excise Commissioner. Supply of opium in such cases is made directly from the Government Treasuries. The Excise Department exercises a vigilant watch against smuggling or misuse of the stuff.

Pharmaceuticals

There is one Pharmaceutical Laboratory at Ernakulam Its working is supervised by an Excise Inspector and two Excise Guards. The establishment charges, i.e., the pay, allowances etc. of the Excise staff posted in the Laboratory are met by the licensee. The Excise Inspector in charge of the Laboratory has to supervise the issue of non-duty paid spirit for the manufacture of spirituous preparations in the Laboratory and is responsible for the collection of duty on the manufactured products sold from the Laboratory at prescribed rate.

Distilleries

There is one Distillery at Palluruthi in this District. Its working is almost similar to that of the Laboratory mentioned above, with the one difference that at the Distillery spirit is manufactured whereas at the Pharmaceutical Laboratory the process begins with spirit obtained from a distillery.

Breweries

There is also a Brewery at Ernakulam which started functioning on April 14, 1962. No liquor of any kind is manufactured here. It is almost working as a bonded warehouse. The establishment charges of the Excise staff

posted in the Brewery are met by the licensee. Non-duty paid Indian made foreign liquor is brought here and taken into the bonded warehouse. The liquor is sold to F. L1 (wholesale) licensees after payment of duty. This process is supervised by the Excise staff.

The total Excise Revenue for each of the years from 1955-56 to 1960-61 is given below.

Year	Amount Rs.
1955-56	55,92,337.47
1956-57	56,97,9561.73
1957-58	62,48,799.54
1958-59	66,41,832.14
1959-60	70,14,175.53
1960-61	83,52,298.96
1961-62	N.A.
1962-63	1,09,98,517.14
1963-64	1,21,21,839.53

CENTRAL REVENUES

Central Excise

The Central Excise administration in three Taluks of Ernakulam District is vested in the Superintendent of Central Excise, Ernakulam Circle. The Ernakulam Central Excise Circle jurisdiction is divided into three Ranges, viz., Cochin M.O.R., Tomco and Oil Installation Range and Parur. The whole of Parur Taluk and ten villages of Mukundapuram, Alwaye, Kanayannur and Cranganore Taluks form the Parur Range. The jurisdiction of Cochin M.O.R. extends to Cochin Taluk except Chennamangalam village and Kanayannur Taluk except Kizhakumbhagam, Chuva and Malapathur villages and that of the Tomco and Oil Installation Range, Ernakulam, extends over 3 Oil Companies viz., (1) M/S. B.O.C., M/S. Stanvac and (3) M/S. Caltex and also over Tata Oil Mills. The Cochin M.O.R. and Tomco and Oil Installation Ranges are each placed under a Deputy Superintendent who is assisted by Inspectors and Sub-Inspectors, while the Parur Range is placed under an Inspector who is assisted by a Sub-Inspector. Besides,

there is a Preventive and Intelligence Unit in charge of an Inspector stationed at the Circle Head quarters at Ernakulam having jurisdiction over all the three Ranges. The Central Excise Department deals with the Central Taxes levied on Tobacco, Package Tea, Mineral Oils, V.N.E. Oil, Vegetable Products, Soap, Glycerine, Patent and Proprietary Medicines, Copper and Copper Alloys, Zinc, Aluminium, Wireless receiving sets etc. The Preventive Intelligence Unit is intended to detect illicit traffic in excisable commodities and prevent evasion of excise duties. The total excise revenue and expenditure for this District for three years preceding March 1961 are given below.

Year	Revenue Rs.	Expenditure Rs.
1958-59	3,92,01,000.00	89,000.00
1959-60	7,01,56,000.00	1,51,000.00
1960-61	5,62,41,000.00	1,47,000.00

Income Tax

There are four Income-tax Circles in Ernakulam District, viz., Ernakulam Circle, Special Survey Circle, Ernakulam, Mattancherri Circle and Alwaye Circle. The seven Income tax Officers of these Circles whose jurisdiction over the areas is given at Appendix to this Chapter, administer the Income Tax Act as well as the other allied Acts, viz., those relating to Wealth Tax, Expenditure Tax and Gift Tax. Their work is supervised by the Inspecting Assistant Commissioner of Income tax, Ernakulam. Appeals against the order passed by the Income Tax Officers are heard by the Appellate Assistant Commissioner of Income tax, Ernakulam.

In addition to the Income-tax Officers referred to above, there are two Assistant Controllers of Estate Duty at Ernakulam who are administering the Estate Duty Act all over Kerala. Their work is supervised by the Inspecting Assistant Commissioner of Estate Duty Range, Madras.

The table given in pages 618-19 shows the number of assessees and tax collected during the financial years 1960-61, 1961-62 and 1962-63.

Name of Circle	Collections under Income Tax, No. of Assesees			
	I.T.	W.T.	G.T.	E.T.
1	2	3	4	5
1960-61				
I.T. Circle, Ernakulam	2,095	41	45	5
Special Survey Circle, Ernakulam	643	12	1	1
I.T. Circle, Mattancherri	1,421	66	22	10
I.T. Circle, Alwaye	2,934	15	163	6
Estate Duty (E.D.) Circle Ernakulam	..	627	..	..
1961-62				
I.T. Circle, Ernakulam	2,306	47	58	..
Special Survey Circle, Ernakulam	656	16	1	..
I.T. Circle, Mattancherri	1,516	88	23	4
I.T. Circle, Alwaye	2,652	20	361	..
E.D. Circle, Ernakulam	..	850	..	..
1962-63				
I.T. Circle, Ernakulam	2,609	63	47	..
Special Survey Circle, Ernakulam	789	8	..	..
I.T. Circle, Mattancherri	1,834	95	12	2
I.T. Circle, Alwaye	3,251	19	177	1
E.D. Circle, Ernakulam	..	637	—	..

I. T.—Income Tax
W. T.—Wealth Tax
G. T.—Gift Tax
E. T.—Expenditure Tax

Wealth Tax etc., 1960-63

Tax collected (in Rupees)				
I.T.	W.T.	G.T.	E.T.	E.D.
6	7	8	9	10
22,36,000	79,000	67,000	7,000	..
9,58,000	10,000	31,000	1,000	..
31,31,000	66,000	8,000	3,000	..
1,01,73,000	26,000	63,000	4,000	..
				6,24,000
22,93,777	74,231	62,826	3,012	–
7,64,250	9,283	36,000	–	–
36,51,957	78,762	7,797	8,505	..
82,87,916	25,070	38,003	3,695	..
–	–	–	–	11,29,715
41,75,648	64,782	53,586	..	..
8,05,950	2,484	..	..	–
50,39,794	1,18,018	11,212	1,694	..
32,18,153	(—)176,817	1,17,191	(—) 488	..
–	..	–	–	10,47,760

APPENDIX I

Income Tax Offices and their Jurisdiction

	Designation	Address	Jurisdiction
1	Income Tax Officer, Ernakulam Circle, Ernakulam.	K.G.P. Buildings, Railway Jn. Road Ernakulam	All persons (except those assigned to the Salary Circle, Trivandrum and the Addl. I.T.O. Ernakulam Circle) within the Municipal limits of the Ernakulam Town (excluding the area assigned to the Addl. I.T.O. Ernakulam Circle) in Kanayannur Taluk in Ernakulam District
2	Addl. I.T.O. Ernakulam Circle, Ernakulam	do.	All persons (except those assigned to the Salary Circle, Trivandrum) within the territorial jurisdiction in the area of Ernakulam Town specified below "Area of Ernakulam Town bounded on the west by the Broadway from Durbar Hall Road junction (but excluding assessees on either side of the road) and by the Market road from the Jew Street junction upto the Banerji Road, on the north by Banerji Road from Market Road junction to 70 Feet Road junction, on the East by the 70 Feet Road from the Banerji Road junction upto the Durbar Hall Road junction and on the South by the Durbar Hall Road from the 70 Feet Road Junction upto the Broadway Junction."
3	I.T.O. Special Survey Circle, Ernakulam	K.G.P. Building, Railway Jn. Road, Ernakulam	All new assessees discovered in the course of survey operations in the Special Survey Circle, Ernakulam, jurisdiction of which has been extended over the areas comprised of the territorial jurisdiction of the I. T. Circles mentioned below:— 1 Ernakulam. 2 Salary Circle, Trivandrum. 3 Trichur. 4 Mattancherri. 5 Quilon. 6 Trivandrum. 7 Kottayam. 8 Alwaye. 9 Alleppey. 10 Palghat. 11 Calicut and 12 Cannanore and All persons (except those assigned to the Salary Circle, Trivandrum and to other I.T.Os u/s 5 (7A) of the I.T. Act) within the Municipal Town of Fort Cochin in the revenue Taluk of Cochin in Ernakulam District.
4	I.T.O. Mattancherri Circle, Mattancherri	Door No. IV 406 B, Police Station Road, Mattancherri	All persons except those assigned to the Salary Circle, Trivandrum and to other I.T.Os u/s 5(7A) of the I.T. Act and Salary cases subject to deduction of tax u/s 18 of the I.T. Act, 1922) within the Municipal wards Nos. 1, 2, 3, 4, 15, 16, 21, 22 and 28 of the Mattancherri Municipality and in the Willingdon Island of Cochin Taluk.

APPENDIX I (*Concld.*)

Income-Tax Offices and their Jurisdiction—*Concld.*

	Designation	Address	Jurisdiction
5	Addl. I.T.O.. Mattancherri Circle, Mattancherri	Door No. IV 406 B, Police Station Road, Mattancheri	All persons (except those assigned to Salary Circle, Trivandrum, the main I.T.O., Mattancherri and to other I.T.O.s u/s. 5(7A) of the I.T. Act) in the Mattancherri Municipality and Willingdon Island of Cochin Taluk.)
6	I.T.O., Alwaye Circle, Alwaye	Alwaye	All persons (except those assigned to the Salary Circle, Trivandrum and to other I.T.Os. u/s. 5(7A) of the I.T. Act) within the revenue Taluks of Alwaye, Kunnathunad and Parur of Ernakulam District and Devirolam of Kottayam District.
7	Addl. I.T.O. Alwaye Circle, Alwaye.	do.	All persons (except those assigned to the Salary Circle, Trivandrum and to other I.T.Os u/s 5(7A) of the I.T. Act) within the revenue Taluks of Moovattupuzha and Thodupuzha in Ernakulam District and Meenachil and Vaikom of Kottayam District.

CHAPTER XII

LAW, ORDER AND JUSTICE

Incidence of Crimes

The most important crimes reported from the Ernakulam District are murder, robbery, house-breaking, theft including house-theft, offences committed by juveniles, cheating etc. The crimes connected with social evils such as gambling, immoral traffic in women and girls, drunkenness etc. are also not very rare. Crimes are committed owing to a variety of causes. The most important of them are growing unemployment and poverty, tension between political parties, activities of students of schools and colleges in both rural and urban areas, land disputes, strikes and lock-outs in factories, labour disputes in the Cochin Dockyard, enactment of land legislation etc. A comparative statement of the major crimes reported during each of the years from 1958 to 1962 is given in Table I.

TABLE I

Major Crimes reported, 1958-62

	1958	1959	1960	1961	1962
Smuggling	..	..	6	6	1
Murder	34	28	18	19	20
Sex crime	6	4	3	5	4
Immoral traffic in women and Girls	25	30	7	8	5
Gambling	70	112	92	76	98
Drunkenness	141	190	178	112	116
Illicit distillation	..	..	—	—	1
Robbery	16	14	10	9	13
House breaking	315	385	298	270	260
Theft including House theft	383	465	366	320	272
Cheating	16	8	15	18	8
Juvenile delinquency	..	2	2	20	29

It may be seen from the above table that the incidence of major crimes has shown a slight decrease in recent years. This was mostly due to extreme police vigilance in the matter of detection and prevention of crimes and better control over known criminals. Nevertheless, cases of juvenile delinquency are on the increase. This is noticed particularly within the limits of Ernakulam and Mattancherri Police Circles which are very big commercial centres. The main reasons for increase in juvenile delinquency are acute unemployment and poverty among the lower classes and consequent lack of attention to their children on the part of guardians belonging to these classes. In addition, there are the practical difficulties in the strict enforcement of Children's Act and and Beggars' Nuisance Act. Most of the juveniles are first offenders.

The Prohibition Act is in force in this District only within the limits of one Police Station, viz., Fort Cochin which formed part of the erstwhile Malabar District where Prohibition is in force. Fort Cochin is surrounded by wet areas and hence the culprits find it easy to escape to these areas eluding police attention. This is a handicap in the strict enforcement of the Prohibition Act. Nevertheless, the police has been able to detect comparatively good number of cases from the prohibition area in this District. The total number of prohibition cases detected during each of the years from 1958 to 1962 are given in Table II.

TABLE II

Prohibition Cases

Year	Number
1958	57
1959	93
1960	72
1961	55
1962	75

Cases of suicide are also reported frequently. Usually suicide is committed by hanging oneself or by drowning or by poisoning. The total number of cases of suicide reported during the years 1958-62 are given in Table III.

TABLE III

Suicide Cases

		By Drowning	By Poisoning	By Hanging	Other cases	Total
1958						
Males	Adults	11	3	78	1	93
	Children	..	2	1	..	3
Females	Adults	2	4	17	..	23
	Children	..	..	..	..	..
1959						
Males	Adults	8	2	56	..	66
	Children	1	1	3	..	5
Females	Adults	1	9	15	..	25
	Children	1	..	..	..	1
1960						
Males	Adults	8	8	59	..	75
	Children	..	..	..	..	..
Females	Adults	5	8	14	1	28
	Children	1	..	1	..	2
1961						
Males	Adults	6	2	45	5	58
	Children	..	..	..	1	1
Females	Adults	4	3	10	2	19
	Children	..	..	1	..	1
1962						
Males	Adults	9	6	55	2	72
	Children	..	..	1	..	1
Females	Adults	7	6	20	2	35
	Children	..	..	2	..	2

Organisation and Functions of the Police Force

Kerala State is divided into two Police Ranges-Southern and Northern. The Ernakulam District comes under the Northern Range. Like other Districts of Kerala, Ernakulam too has two main units of the police force viz., the Local Police and the District Armed Reserve. These units are under the control of the Superintendent of Police, Ernakulam, who is the head of the Police Department at the District level. For the purpose of efficient administration of law and order, the entire District is divided into two Sub-divisions, viz., Ernakulam and Alwaye. Each of these Sub-divisions is under the charge of a Sub-Divisional Officer. The Divisions are further sub-divided into Circles.

This District consists of 5 Circles each of which is under a Circle Inspector. Below the Circle Inspectors there are the Sub-Inspectors who are in charge of the Police Stations and register the cases reported. Out-posts are also attached to some of the Police Stations. A list of Police Circles, Stations and Out-posts is given in the table at Appendix I.

The registration of cases is done at the Police Stations and investigation is usually conducted by Sub-Inspectors and Head Constables. Important cases are investigated by Circle Inspectors and other superior officers.

District Armed Reserve

The District Armed Reserve Unit, Ernakulam, is under the immediate control of an Assistant Commandant. Whenever needed, it provides assistance to the local police by giving personnel as well as vehicles for the maintenance of law and order. On important occasions like the Independence Day, Republic Day etc., it provides persons to take part in ceremonial parades, march pasts etc. As Ernakulam is a place of great importance, the District Armed Reserve is being vested with manifold duties in recent years.

District Special Branch

There is a unit of the Special Branch attached to this District under the immediate control of a Special Branch Assistant to deal with confidential as well as vitally important matters.

District Intelligence Bureau

The District Intelligence Bureau attached to this District is run by a Sub-Inspector and three Head Constables. The main function of this Bureau is to collect, record and distribute information regarding crimes and habitual criminals.

Traffic Unit

The Traffic Police Unit of this District has one Sub-Inspector and 4 Head Constables. In addition, there is an additional Traffic Unit with a Sub-Inspector. The primary duties for these units are to enforce the Motor Vehicles Act and Rules. The traffic staff is vested with powers to detect

offences relating to traffic rules and prosecution of offenders.

The table at Appendix II gives briefly the particulars of the strength of the Police force under the control of the District Superintendent of Police, Ernakulam, as on April 1, 1963.

Home Guards

There is a Unit of the Home Guards in this District. It is a statutory voluntary organisation set up under the provisions of the Kerala Home Guards Act (1960). The members of the Home Guards are given training to discharge such duties as protection of persons, security and safety of the public etc. and to assist the police force, whenever necessary, in the satisfactory discharge of their duties. In July 1964 the strength of the Home Guards in Ernakulam was as follows:—

Total	540
District Commander	1
Staff Officers	3
Company Commanders	3
Platoon Commanders	8
Platoon Sergeants	8
Other Home Guards	517

Fire Service

The Fire Service in Kerala State was separated from the Police Department when the Kerala Fire Force Act (1962) came into force on January 22, 1963. The Director of Fire Force, with Headquarters at Trivandrum, is the Head of the Department. The State is divided into two Regions, the Northern Region with Headquarters at Calicut, and the Southern Region with Headquarters at Ernakulam. A Regional Fire Officer is in charge of each Fire Service Region. Fire Stations are established for the protection of important urban centres. The staff structure and the number of Fire Fighting Units for each city or town are fixed according to the strength of the population. The towns in Ernakulam District where Fire Stations now exist with details of the number of units and the staff sanctioned for each are furnished below.

Fire Stations

Town	Pumping Units			Staff	
	Basic	Reserve	Ambulance		
Ernakulam	2	1	1	Sub Officer	1
				Leading Firemen	4
				Driver Mechanic	1
				Firemen Driver	6
				Firemen	20
				Telephone Operator-cum-Clerk	1
Mattancherri	2	1	1	Sub Officer	1
				Leading Firemen	4
				Driver Mechanic	1
				Firemen Drivers	6
				Firemen	20
				Telephone Operator-cum-Clerk	1
Fort Cochin (Training School-cum-Fire Station)	2	1	Nil	Sub Officer	1
				Leading Firemen	1
				Firemen Drivers	4
				Firemen	4
Alwaye	1	1	1	Sub Officer	1
				Leading Firemen	2
				Driver Mechanics	1
				Firemen Drivers	4
				Firemen	13

Types of fires, according to the fire statistics maintained by the Fire Service in respect of this District, fall under the undermentioned categories:- (1) House-hold (2) Shops (3) Timber (4) Explosives (5) Refuse out-door storage, (6) Electrical undertakings (7) Farm Land and (8) Miscellaneous. Moreover, fires are divided into three categories - serious, medium and small according to the estimated value of the property damaged. Serious fires are those in which the estimated damage is valued at Rs. 50,000 and above, medium fires those over Rs. 10,000 and below Rs. 50,000 and small fires those of Rs. 10,000 and less. It should, however, be stated that fires in which loss of human life is involved, are treated as serious, irrespective of the value of the property damaged. The statistics relating to the outbreak of fire in each class for the years 1961-64 and the approximate value of property lost are given below:-

Cases of Fire and Value of Property damaged (1961-64)

Year	Serious	Medium	Small	Total	Approximate value of property lost
1961	1	1	56	58	Rs. 12,96,637
1962	..	3	73	76	Rs. 1,23,885
1963	2	2	82	86	Rs. 2,13,786
1964	1	..	54	55	Rs. 2,62,198

Some other relevant data are also given in the following tables.

Incidents calls (Rescue calls) attended

Year	No. of calls attended
1961	1
1962	1
1963	1
1964	4

Ambulance calls attended

Year	No. of calls	Amount collected
1961	16	Rs. 253.00
1962	41	Rs. 1,208.50
1963	42	Rs. 452.50
1964	37	Rs. 352.00

Stand-by and Private Pumping Work undertaken

Year	No. of calls	Amount collected
1961	1	Rs. 105
1962	3	Rs. 7,955
1963	1	Rs. 75
1964	1	Rs. 300

JAILS

Historical Background

The Ernakulam District occupies a relatively unimportant place in the Prison Administration of the State. It is, however, seen that one of the two District Jails of erstwhile Cochin State was located in Ernakulam town in the 19th century. In addition, there was also a small jail at Thrippunithura which worked as a branch jail of the Ernakulam District Jail. These jails were conducted on primitive lines, all the prisoners being kept in fetters throughout the period of their imprisonment. The buildings in which the prisoners were kept were not specially adapted for jail purposes and they were very much overcrowded. In 1890 the old jail building was abandoned and a Central Jail for Cochin State was established at Ernakulam with accommodation for 200 persons. Its administration was placed under a full-time Superintendent assisted by a Jailor and an Assistant Jailor. A hospital was attached to the jail for the medical treatment of prisoners. The jail was guarded by a detachment of British soldiers stationed at Ernakulam. The insanitary surroundings and heavy congestion in the Ernakulam Central Jail

compelled the Government before long to erect an up-to-date jail in the spacious grounds of the old Viyyur Park near Trichur. The transfer of the Central Jail from Ernakulam to Viyyur was effected in 1914 during the Dewanship of Sir A.R. Banerjee. There is at present no Central Jail in this District.

PRISON ORGANISATION

There are five jails under the Jails Department in the Ernakulam District. They are the A Class Sub-Jail, North Parur, the A Class Sub-Jail, Alwaye, the A Class Sub-Jail, Moovattupuzha, the Sub-jail, Mattancherri, and the Sub-jail, Ernakulam. Brief accounts of these institutions are given below:—

Sub-jail, North Parur

The A Class Sub-jail, North Parur, was established in 1957. It is under the control of a Superintendent. The sanctioned accommodation of the jail is 21. Discipline is maintained in accordance with the jail regulations. Being only a Sub-jail the prisoners are not generally set to work. A Malayalam newspaper is supplied to the prisoners. Juvenile delinquents and female prisoners are kept in separate cells. The Board of Visitors of this jail consists of a woman social worker, a lawyer, and the local M L.A.

Sub-jail, Alwaye

The A Class Sub-jail, Alwaye, is located in the Municipal town, near the Police Station. Established in September 1955, it is under the control of a Superintendent who is assisted in his official duties by one Head Warden and five Wardens. The sanctioned accommodation of the jail is 98. Female prisoners are confined separately. Only short term convicts are kept in this jail. A Malayalam daily is given to the prisoners for reading. The Board of Visitors consists of the Local M.L.A., M.P., a doctor, a lawyer and a social worker.

Sub-jail, Moovattupuzha

The 'A' Class Sub-jail, Moovattupuzha , is located in the Municipal town. It is under the administrative control of a Superintendent who is assisted by one Head Warden

and five Wardens. Besides, there is a female Warden who is appointed periodically when female prisoners are accommodated. The capacity of the jail is 64. There is a separate cell for women. Under-trials and prisoners convicted for a minimum period of one month are alone accommodated in this jail. Newspapers and library books are being supplied to the prisoners. The local chief Medical Officer visits the jail regularly. The Board of Visitors consists of the local M.L.A., a member of the local bar, and a lady social worker. There is a good garden in the jail. Able-bodied prisoners are engaged for gardening work here. A part of the vegetables produced in the garden is consumed by the prisoners themselves and the rest is being sold through auction.

Sub-jail, Mattancherri

The Mattancherri Sub-jail was established in 1956. It is under the control of a Superintendent who is assisted by a Head Warden and five Wardens. The sanctioned accommodation of the jail is 48. Female prisoners are kept in a special cell. The Board of Visitors consists of the local M.L.A., a lady doctor and a lawyer. They visist the jail periodically.

Sub-jail, Ernakulam

The Sub-jail, Ernakulam was established on the 20th January, 1956. It is under the control of a Superintendent who is assisted by one Head Warden and six Wardens. The sanctioned accommodation of the jail is 48. The prisoners are supplied one Malayalam newspaper for reading. They are also allowed to buy newspapers, magazines etc., at their own expense. Prisoners are also allowed to smoke. Prisoners are housed in separate blocks according to their sex and there is no provision for solitary confinement. There is a Board of three Visitors for this Jail. They are the local M.L.A., a lawyer and a doctor. They visit the jail periodically.

Probation System

The Central Probation of Offenders Act was enforced throughout the State of Kerala on 15th July 1958. Till then the benefit of the Probation system was limited to the former Malabar area as the Madras Probation of Offender's Act

(1937), Madras Children Act (1920) and Madras Borstal Schools Act (1925) were in force in that part of the State and no such Acts were in force in the Travancore-Cochin area. In October 1960 the Probation system was extended and made to function in the whole State of Kerala with one District Probation Officer in each revenue District of the State. There is a District Probation Officer at Ernakulam.

The Probation of Offender's Act provides for the release of offenders after admonition or on probation of good conduct as an alternative to imprisonment or detention in an institution. The Magistrates refer the cases to the District Probation Officer after the guilt is established. The District Probation Officer gathers the information regarding the home surroundings, criminal record, social history, etc. of the offender and the circumstances under which the offence was committed and he sends a report to the court stating his opinion whether the offender may be released on probation or be given institutional treatment. In cases where the court passes a probation order the District Probation Officer is charged with the duty of supervision of the probationers. During the period of probation he has to visit the probationer periodically. He has also to help the offender to rehabilitate himself. If the probationer violates any of the conditions of probation, his case will be reported back to the concerned Magistrate for taking further action such as sending him to jail or other institutions etc.

The procedure adopted in the case of juvenile and adolescent offenders is also the same as that mentioned above. The District Probation Officer on receipt of order from the court makes enquiries regarding the whereabouts of the offenders and if the parents are found unfit to provide proper care, he would recommend the detention of the offender in the Borstal School or Balamandir. If his findings are to the contrary, he may suggest to the court to release the offender and hand him over to the parents under the supervision of the Probation Officer. The subsequent actions in such cases are on the same lines as those provided for adult offenders.

Cases under the Suppression of Immoral Traffic Act are also referred to the District Probation Officer. In addition, he is also entrusted with the work of supervision

of ex-pupils of Certified Schools and ex-inmates of Rescue Homes.

Rescue Home, Ernakulam

The Rescue Home, Ernakulam, started functioning on March 20, 1957. It provides facilities to the women and girls rescued from moral danger under the provisions of the Suppression of Immoral Traffic Act (1956). In order to rehabilitate women, a production unit in garment-making has been attached to the institution. Training is imparted to the inmates in needle-work and tailoring. Inmates are also interested in envelope-making and orders from the Government Press, Ernakulam, are executed. The institution is functioning under the guidance of a Managing Committee constituted by the Government. The staff consists of one Superintendent, one Assistant Superintendent, one Upper Division Clerk, one Typist, one Needle-work Teacher, one Weaving Teacher, one Literacy Teacher, one Matron, two Peons, one Watch-woman, one Cook and one part-time Doctor. The strength of the inmates in February 1963 was 44.

Abalamandir and After-Care Hostel

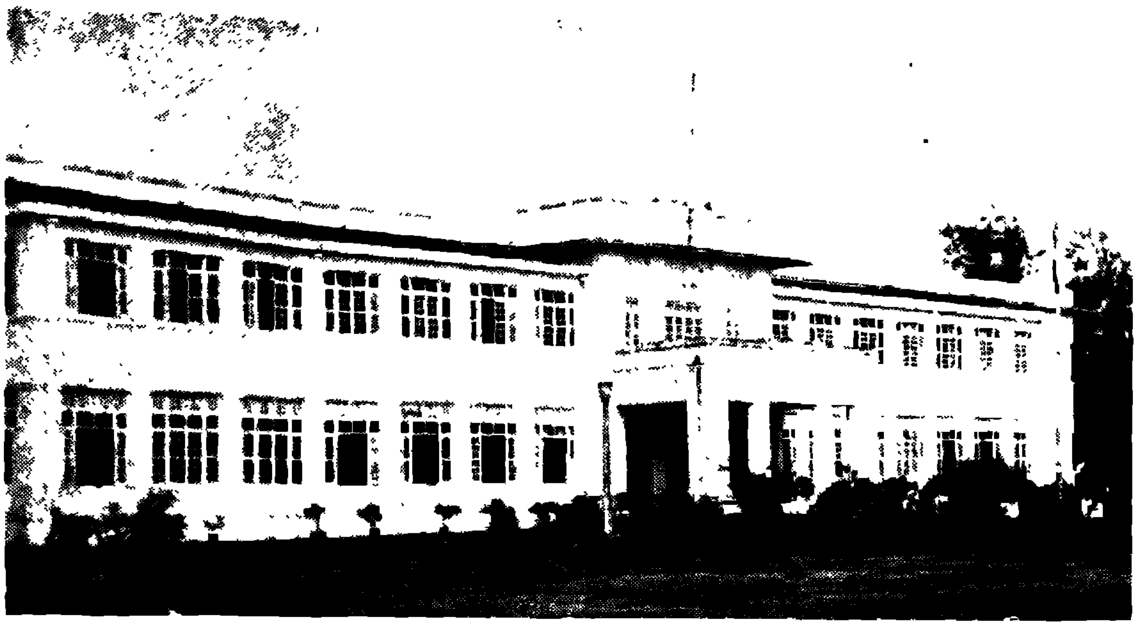
Besides the Rescue Home, Ernakulam has an *Abalamandir* and an After-Care Hostel. The Abalamandir was opened on October 10, 1951. It provides accommodation for 25 destitute women at Government expense. The inmates are given some kind of work like Coir-making, Cooking, Tailoring, Embroidery, Hand-pounding of rice etc. inside the institution. The After-Care Hostel opened on March 31, 1962 provides facilities to fifty women. Its object is to render after-care services to women and girls discharged from correctional institutions with a view to effecting their reformation and rehabilitation. Both the Abalamandir and the After-Care Hostel are managed by the Managing Committee of the Rescue Home, Ernakulam.

ADMINISTRATION OF JUSTICE

Historical Background

The history of modern judicial administration in the District begins with the advent of the British. In Fort

Cochin an auxiliary Zilla Court was set up in 1812 and in 1816 a District Munsiff's Court was also established. The former was abolished in 1845 and its place was taken by the principal Sudr Amin's Court. In 1875 the designation of the principal Sudr Amin was changed into Subordinate Judge. In the Cochin area the establishment of courts presided over by regularly paid judges was one of the reforms introduced by Col. Munro. By the Hukm-nama of April 1813 a *Cheria* or Subordinate Court was established at Thrippunithura and a *Valia* or Huzur Court at Ernakulam. The Subordinate Court was presided over by a Hindu and a Christian judge and a Sastri and the Huzur Court by the Dewan, a Hindu and a Christian judge and a Sastri. All disputes were to be settled according to the provisions of the *Dharma Sastras* and the custom of the land. In 1818 during the Dewanship of Nanjappayya a Proclamation was issued by which the Huzur Court was converted into an Appeal Court and the Subordinate Court at Thrippunithura was removed to Ernakulam and designated the Zilla Court of Anchikaimal. The Zilla Court was empowered to enquire into and dispose of all cases subject to confirmation by the Appeal Court and appeals lay from their decision to the Appeal Court. By Regulation I of 1036 which was passed in June 1861 a Munsiff's Court was set up at Ernakulam for the trial of cases not exceeding Rs. 100 in value. This was done to provide some relief to the Zilla Court where the volume of work had increased considerably. In 1877 a separate Munsiff's Court was established for the Cochin Taluk. This was, however, abolished in 1883, but was revived seven years later. The constitution of courts in Cochin underwent an important change in 1882. In that year four classes of courts were constituted by Regulation I of 1057 (1881-82), viz., the Munsiff's Court, the Zilla Court, the Appeal Court and His Highness the Raja's Court of Appeal. Regulation X of 1076 (1900-01) constituted a Chief Court and put an end to the Raja's Court of Appeal while Regulation III of the same year changed the designation of the Zilla Court into District Court. Village Panchayat Courts were set up by Regulation V of 1089 (1913-14) and empowered to entertain certain classes of suits not exceeding Rs. 30 in value. In 1938 the Chief Court of Cochin was converted into a High Court. In the Travancore area the scheme of judicial reform devised in 987 K. E. (1811-12) during the reign of Rani Gouri



RAM MOHAN PALACE, THE KERALA HIGH COURT BUILDINGS, ERNAKULAM

Lakshmi Bai provided for the establishment of a Subordinate Court at Alwaye for the Alangad Mukhom. This Court which was subsequently named the Zilla Court was stationed at Parur. It was in 1831 that Munsiff's Courts were first set up in Travancore and Alwaye, Parur, Perumbavur, Moovattupuzha and Thodupuzha in this District gradually became seats of Munsiff's Courts. A Village Panchayat Court was set up at Parur in 1917.

Organisation of Civil Courts

Ernakulam District has a place of honour in the scheme of judicial administration in Kerala as the Kerala High Court is located in Ernakulam town. But the District Judge, Ernakulam, is the highest authority in matters pertaining to the administration of justice in the District. The District Court, Ernakulam, has attached to it not only the District Judge, Ernakulam, but also two Additional District Judges, one at Ernakulam and the other at Parur. The District Judge presides over the District Court which is the principal court of original civil jurisdiction in the District. The District Court is also a court of appeal from all decrees and orders upto the value of Rs. 10,000 passed by the subordinate courts from which an appeal can be preferred. The District Judge exercises general control over all civil courts in the District and their establishments and inspects proceedings of these courts. The Additional District Judges have all the powers of the District Judge except the powers of administration and supervision. The Additional District Judge, Ernakulam, is also the State Transport Appellate Tribunal.

Subordinate to the District Judge are the Sub-Courts, Munsiff's Courts, Village Panchayat Courts and Village Courts. The Sub-Judge exercises both original and appellate jurisdiction. He tries original cases the value of which is unlimited and appellate cases the value of which does not exceed Rs. 5,000. The Village Courts constituted under the Travancore Village Panchayat Courts Act I of 1090 (1914-15) are empowered to try petty civil suits, the value of which does not exceed Rs. 100. Section 73 of the said Act permits of revision being preferred before the District Courts in civil suits.

The courts subordinate to the District Court as it stood on 31-3-1961 are as follows—

Civil Courts

	Courts		Station
1	Sub-Court (two benches)		Ernakulam
2	Sub-Court (one bench)		Cochin
3	Munsiff's Court	(two benches)	Ernakulam
4	Munsiff's Court	(one bench)	Cochin
5	"	"	Parur
6	"	"	Alwaye
7	"	(two benches)	Perumbavur
8	"	(one bench)	Moovattupuzha
9	"	"	Thodupuzha
10	Village Panchayat Court		Alwaye
11	"		Parur

The Additional Munsiff's Court at Ernakulam is also a Rent Control Court. The Munsiffs at Alwaye, Parur and Thodupuzha are First Class Magistrates also.

In addition to the courts referred to above there are 12 Village Courts functioning in the Cochin area of the District. They are located at the following places:—1. Cheranellur 2. Amballur 3. Nadamel 4. Maradu 5. Ernakulam 6. Njarakkal 7. Palluruthi 8. Mattancherri 9. Kumbalangi 10. Kuzhuppilli 11. Sreemoolanagaram and 12. Chennamangalam.

The Village Courts are constituted under the Cochin Village Courts Act (Act XII of 1118) (1943). They are empowered to try petty civil suits the value of which does not exceed Rs. 100. Each Village Court consists of a President, a Senior Judge and three other Judges nominated by the Government and they work in an honorary capactiy. Every case before a Village Court should be disposed of by a Panchayat of three Judges. The Village Courts function under the Registrar of Village Courts who has his office at Trichur. The office is partly a judicial one dealing with judicial papers and functioning as a revision court of Village Courts and partly as an administrative head office exercising supervision and control over the Village Courts. The District Judge supervises the work of the Registrar but such supervision is confined to the judicial side only.

Cases handled in Civil Courts

In the various courts including the Village Panchayat Courts in the Ernakulam District 5527 suits were pending at the beginning of the year 1960-61. During the same year 6171 suits were instituted and 414 suits were received otherwise. Of these 6519 were disposed of and the balance pending at the end of the year was 5593.

Of the 6171 suits instituted, 4111 were for money or movable property; 811 were for immovable property; 648 related to mortgages, and 601 were for specific reliefs and other rights.

Of the suits instituted 1967 were of value not exceeding Rs. 100, 3453 were of value above Rs. 100 but not exceeding Rs. 1,000, 785 were of value above Rs. 1,000 but not exceeding Rs. 5,000, 134 were of value above Rs. 5,000 but not exceeding Rs. 10,000 and 102 were of value above Rs. 10,000. The total value of suits instituted was Rs.6,907,078.

Of the 6519 suits disposed of, 124 were disposed of without trial, 1700 ex-parte, 751 on admission of claims, 919 by compromise, 2924 after full trial, 5 on reference to arbitration and 96 by transfer to other courts.

There were 539 appeals (including miscellaneous appeals) pending at the beginning of the financial year 1960-61. During the same year 1123 appeals were instituted and 1190 disposed of and the balance pending at the end of the year was 472.

Of the 1190 appeals disposed of, 243 were dismissed or not prosecuted, 577 confirmed, 147 modified, 133 reversed and 90 remanded for re-trial.

Organisation of Criminal Courts

The Sessions Court is the principal court of original criminal jurisdiction in the District and it is presided over by the Sessions Judge. Actually the District Judge is also the Sessions Judge when he hears criminal cases and for purposes of criminal jurisdiction exercised by him the District is referred to as the Sessions Division. The Sessions Judge tries criminal cases which are committed to his Court by Judicial Magistrates after preliminary enquiry and hears appeals against their decision. The Additional District Judges and the Sub-Judges function as Additional Session Judges and Assistant Sessions Judges respectively. The Session Judge and Additional Session Judges can pass any sentence authorised by law but sentence of death passed by them is subject to confirmation by the High Court. The Assistant Session Judge can pass any sentence authorised by law except a sentence of death or of imprisonment for a term exceeding ten years.

The separation of the judiciary from the Executive is complete in this State so that, like every other District, Ernakulam has also two categories of Magistrates, Executive

and Judicial. The Executive Magistrates are the executive officers of the Revenue Department in whom is vested the responsibility for the maintenance of law and order. The District Collector, by virtue of the office he holds, retains some of the powers of a District Magistrate. He is an Additional District Magistrate. Similarly the Revenue Divisional Officer is an ex-officio First Class Magistrate and he exercises his magisterial powers and functions within his revenue jurisdiction. The category of Judicial Magistrates consists of (1) the District Magistrate (2) Sub-Divisional Magistrates (3) First Class Magistrates (4) Sub-Magistrates and (5) Bench Magistrates.

Under the Criminal Procedure Code and various other statutes the functions of a Magistrate fall within three broad categories viz., (1) functions which are "Police" in their nature, as for instance, the handling of unlawful assemblies; (2) functions of an administrative character, as for instance, the issue of licences for fire arms etc. and (3) functions which are essentially judicial, as for instance, the trial of criminal cases. The allocation of powers between the two categories of Magistrates proceeds upon the principle that matters which are purely police or administrative in their nature should be dealt with by the Executive Magistrates while those which are judicial in nature are strictly within the purview of the Judicial Magistrates.[1] As Officers of the Revenue Department the Executive Magistrates are under the control of the Government through the Board of Revenue while the Judicial Magistrates are under the control of the High Court.

The District Magistrate is the principal magisterial officer of the District and as such he has general administrative superintendence and control over all Judicial Magistrates. He inspects once in every year all the Courts of the Sub-Divisional and First Class Magistrates in the District and such of the Courts of Sub-Magistrates as he considers necessary. His primary responsibility is to see that there is no congestion of work in any Court and that the Magistrates dispose of the work in their Courts properly and promptly. In addition to general supervisory functions the District Magistrate has also a specified area assigned to him the cases arising from which he normally disposes of himself. He hears appeals from second class arising within that

1. The powers of both categories of Magistrates have been defined in G. O. (P) 388/Home dated 5th May, 1959.

area or within any other area not assigned to any other First Class Magistrate. It is open to him to transfer to or from his file, particular cases, or class of cases of special difficulty and importance to himself. The District and Sessions Judge inspects the Court of the District Magistrate annually as the nominee of the High Court. He may, if he thinks fit, also inspect the Court of any other Judicial Magistrate in the District as such nominee, but he does not have general powers of superintendence over Magistrates in his own right.

The ordinary powers of the Magistrates of the several classes are detailed in Schedule III of the Code of Criminal Procedure (Act V of 1898). They may be invested with such additional powers by the State Government as are detailed in Schedule IV of the Code. The Magistrates of the several classes are competent to pass the following sentences:—

(a) Sub-Divisional and First Class Magistrates

1 Imprisonment for a term not exceeding 2 years including such solitary confinement as is authorised by law

2 Fine not exceeding Rs. 2,000

(b) Magistrates of the Second Class

1 Imprisonment for a term not exceeding 6 months including such solitary confinement as is authorised by law

2 Fine not exceeding Rs. 500

The Sessions Court, Ernakulam has attached to it the Sessions Judge and two Additional Sessions Judges one at Ernakulam and another at Parur. The Courts subordinate to the Sessions Court, Ernakulam as it stood on the 31st March 1961 are as follows:

Criminal Courts

	Courts	Station
1	The Assistant Sessions Courts (two benches)	Ernakulam
2	" (one bench)	Cochin
3	The District Magistrate's Court (Judicial)	Ernakulam
4	Addl. First Class Magistrate's Court	Ernakulam
5	Munsiff-Magistrate's Court (1st Class)	Thodupuzha
6	"	Alwaye
7	"	Perumbavur
8	Addl. First Class Magistrate's Court	Moovattupuzha
9	The Sub-Magistrate's Court (Second Class)	Ernakulam
10	" "	Cochin
11	" "	Perumbavur
12	" "	Thodupuzha
13	" "	Parur
14	The Bench Magistrate's Court	Cochin
15	"	Ernakulam

Cases handled in Criminal Courts

There were 16 offences reported to the Sessions Court, Ernakulam, during the year 1960-61. The number of persons under trial was 155. The cases of 146 persons were disposed of during the year. Of these, 96 were acquitted or discharged and 50 were convicted.

The cases of 7 persons were referred to the High Court.

The sentences passed by the Sessions Courts were as follows:

Number of persons who were awarded death sentence	3
Number of persons sentenced to simple imprisonment only	4
Number of persons sentenced to rigorous imprisonment only	34
Number of persons imprisoned and fined	7
Number of persons fined only	2

The total number of offences reported during the year 1960-61 in various Magistrate's Courts in the Ernakulam District was 17,916. The number of persons under trial was 28,897. The cases of 24,881 persons were disposed of during the year and 4,016 persons were awaiting trial at the end of the year. In the cases thus disposed of, 6,504 persons were discharged or acquitted, 13,770 were convicted and 48 were committed to the Sessions and the remaining were otherwise disposed of. The sentences passed by the Magistrate's Courts were as follows:—

Number of persons sentenced to simple imprisonment only	553
Number of persons sentenced to rigorous imprisonment only	322
Number of persons imprisoned and fined	119
Number of persons fined only	12,776

Law Officers in the District

The following are the law officers of Government functioning in the Ernakulam District.

	Designation	Number
1	Government Pleader cum Prosecutor	1
2	Additional Government Pleader cum Public Prosecutor	1
3	Additional Government Pleader, Parur	1
4	Assistant Public Prosecutors —Grade I	1
	Grade II	3

Number of Legal Practitioners

There were 439 Legal Practitioners practising in the Ernakulam District in 1960-61, of whom 388 were Advocates of the Kerala High Court.

BAR ASSOCIATIONS

As Ernakulam is the seat of the Kerala High Court, there are influential lawyers' associations in the town. The main objects of these associations are to encourage and promote the study of law, to promote the welfare and protect the interests of the legal profession, to promote and maintain a high standard of professional conduct, to determine questions of professional etiquette, etc. etc.

One of the most important of the lawyers' associations functioning with headquarters at Ernakulam is the Kerala Advocates' Association. It was founded in 1897 with its office at the High Court Buildings in Trivandrum. With the integration of the States of Travancore and Cochin and the establishment of the High Court of the new State at Ernakulam the Association shifted its headquarters to Ernakulam. Its management is vested in an Executive Committee consisting of a President, a Secretary and three members of the Association. In 1963-64 the Kerala Advocates' Association had 361 members on its rolls. Its receipts and expenditure during the year exceeded Rs. 7,500.

Another important association of the lawyers of Ernakulam town is the Ernakulam Bar Association. It was formally inaugurated on 16th August 1910 under the presidentship of K. P. Padmanabha Menon, the eminent lawyer and historian. Its management is vested in a Council consisting of the President, Secretary, Treasurer, Librarian and five members. In 1962-63 the Association had an income and expenditure exceeding Rs. 5,000. It has a library of 5,000 volumes worth Rs. 25,000. Its assets in building, furniture etc. are valued at Rs. 24,071.44. In 1964 the Bar Association had a total membership of 204.

The particulars regarding the other Bar Associations in the District are given below.

Name of Association	Year of Establishment	No. of members in 1963-64
Bar Association, Moovattupuzha	1927	42
Parur Bar Association	1951	60
Bar Association, Perumbavur	1912	40
Bar Association, Alwaye	1946	16
Cochin Bar Association	1937	72
Bar Association, Thodupuzha	1926	29

Bar Council of Kerala

Another notable institution in the field is the Bar Council of Kerala. Established in 1938 its office is located in the Kerala High Court buildings. 20 members are elected to the Council from among the Advocates of Kerala while the Advocate-General is an ex-officio member. The functions of the Council are the following:—(a) to prepare and maintain a common roll of Advocates (b) to lay down standards of professional conduct and etiquette for Advocates (c) to safeguard the rights, privileges and interests of Advocates (d) to promote and support law reform (e) to promote legal education (f) to manage and invest the funds of the Bar Council (g) to provide for the election of its members (h) to perform all other functions conferred on it by or under the Advocates Act etc. The Secretary who is elected by the members is the Chief Executive Officer of the Council. The Bar Council functions through the following Committees:—(1) Executive Committee (2) Enrolment Committee (3) Disciplinary Committee (4) Examination Committee. 3410 Advocates had been enrolled on the Roll of the Bar Council as on March 31, 1964. During the year ending 1963-64 the income of the Council came to Rs. 52,550 and expenditure to Rs. 25,346.69. Its total assets are valued at Rs. 1,52,560.82 The Bar Council meets almost every month to transact business. Enrolment of Advocates is done before the meetings of the Council. The enrolment fee is Rs. 250 out of which 40 per cent is paid to the Bar Council of India.

APPENDIX I

List of Police Circles, Police Stations & Out-posts

Circle	Police Station	Out-post
1 Ernakulam	1 Ernakulam Town North	..
	2 Ernakulam Town South	..
	3 Ernakulam Cusba	1 Cheranellur
		2 Pizhala
	4 Thrippunithura	1 Udayamperur
		2 Kumbalam
		3 Mulanthuruthi
	5 Hill Palace	Mamala
2 Mattancherri	1 Mattancherri Town	..
	2 Fort Cochin	..
	3 Cochin Cusba	Chellanam
	4 Njarakkal	Malippuram
3 Harbour	1 Harbour Crime Branch	..
	2 Land Security Branch	..
	3 Water Security Branch	..
4 Alwaye	1 Alwaye	..
	2 Kalamasserri	Edappilli
	3 Angamali	1 Kaladi
		2 Vellarappilli
		3 Parakkadavu
	4 N. Parur	1 Chennamangalam
		2 Puthenvelikkara
	5 Perumbavur	1 Kodanad
		2 Kumarapuram
	6 Munambam	Moothakunnam
	7 Eloor	Varappuzha
5 Thodupuzha	1 Thodupuzha	1 Kalloorkkadu
		2 Nalleppara
	2 Kanjar	Muttom
	3 Moovattupuzha	Ramamangalam
	4 Kuthattukulam	Piravom
	5 Kothamangalam	1 Punnakkad
		2 Kottappadi
		3 Neriamangalam
	6 Karimannur	..
	7 Pothanikkad	..

APPENDIX II

Strength of the Police Force under the control of the District Superintendent of Police, Ernakulam, in April, 1963

Local Police	Dy. S.Ps.	C. Is.	S. Is.	H.C./ Jamadars	Police Constables
Total	**4**	**8**	**38**	**187/10**	**1,447**
I (i) Attached to Police Stations (Law & Order) and Supervisory Officers	2	5	29	137	900
(ii) Traffic Control	..	..	1	6	..
(iii) Non-Motor Vehicles Taxation	..	..	..	..	..
II District Intelligence Bureau	..	..	1	3	..
III Special Branch	..	*1	**2	10	7
IV Personal Asst. attached to Office	1	..	..	..	..
V District Armed Reserve	***1	†2	5‡	31/10	540

* Special Branch Inspector
** Special Branch Sub-Inspectors
*** A. C. A. R.
† R. Is.
‡ R. S. Is.

CHAPTER XIII

OTHER DEPARTMENTS

The organisational set-up of some of the Departments of the State Government functioning in the District may be considered in this Chapter.

PUBLIC WORKS DEPARTMENT

The Public Works Department functions in this District in two branches, viz., Buildings and Roads and Irrigation and General. The former has two regular Divisions with headquarters at Ernakulam and Moovattupuzha respectively. The Irrigation branch has one Division with headquarters at Ernakulam. In addition, there is a special Division viz., the Periyar Valley Irrigation Division, Perumbavur. Brief accounts of each of the above Divisions are given below.

Buildings and Roads Division, Ernakulam

The Buildings and Roads Division, Ernakulam, is under an Executive Engineer who is under the control of the Superintending Engineer, Buildings & Roads, Central Circle, Alwaye. The Division attends to works such as construction and maintenance of roads, bridges and buildings. Valuation of buildings in lands to be acquired for major projects such as the Hindustan Machine Tools (H.M.T.) and Oil Refinery is attended to by the Valuation Sub-Division under this Division. The Division is divided into 5 Buildings & Roads Sub-Divisions and 16 Sections. The Sub-Divisions are under Assistant Engineers and the Sections under Junior Engineers. For special valuation works there are two Valuation Sub-Divisions with 6 Junior Engineers under them. Besides, one Assistant Engineer (Technical Assistant) and one Junior Engineer (Head Draftsman) are working in the Division Office to assist the Executive Engineer in technical matters.

The name of the Sub-Divisons and Sections are given below:—

Sub-Division	Section
1 Ernakulam	1 Ernakulam
	2 Edappilli
	3 Thrippunithura
	4 Mulanthuruthi
2 Mattancherri	1 Mattancherri
	2 Palluruthi
	3 Njarakkal
3 Alwaye	1 Alwaye
	2 Ankamali
	3 Alangad
4 Parur	1 Parur
	2 Vadakkekkara
	3 Kottuvalli
5 Perumbavur	1 Perumbavur
	2 Puthencruz
	3 Kuruppampadi
6 Valuation Sub-Division, Ernakulam	1 Section No. I, Ernakulam
	2 „ No. II, Ernakulam
7 Valuation Sub-Division for Cochin Oil Refinery, Ernakulam	1 Section No. I, Ernakulam
	2 „ No. II, Ernakulam
	3 „ No. III, Ernakulam
	4 „ No. IV, Ernakulam

Each of the five Buildings and Roads Sub-Divisions has jurisdiction over one Taluk.

Buildings and Roads Division, Moovattupuzha

The Buildings and Roads Division, Moovattupuzha, has jurisdiction over the Moovattupuzha and Thodupuzha Taluks of the Ernakulam District and Vaikom, Udumbanchola and Devikulam Taluks of Kottayam District. It attends to all works (including maintenance, repairs, original works etc.) relating to buildings and roads which are under the control of Government. It is under the administrative control of an Executive Engineer who is under the immediate control of the Superintending Engineer, Central Circle, (Buildings & Roads) with headquarters at Alwaye. Under the Executive Engineer there are four Assistant Engineers each of whom is in charge of a Sub-Division.

The whole Division is divided into 14 Sections each of which is under the charge of a Junior Engineer. The Sub-Divisions and Sections under the Executive Engineer, Buildings and Roads, Moovattupuzha within the Ernakulam Revenue District are given below:—

Sub-Division	Section
1 Moovattupuzha	1 Moovattupuzha 2 Kothamangalam 3 Kuthattukulam 4 Piravam
2 Thodupuzha	1 Thodupuzha 2 Muttom 3 Karimannoor 4 Kalloorkad

The expenditure incurred by the two Sub-Divisions, viz., Moovattupuzha and Thodupuzha falling within the Ernakulam District is furnished below:—

	1961-62 Rs.	1962-63 Rs.
Moovattupuzha Sub-Division	14,06,015	12,50,699
Thodupuzha Sub-Division	11,81,261	10,91,538

Irrigation Division, Ernakulam

The Ernakulam Irrigation Division forms part of the Irrigation Central Circle with headquarters at Trichur. It has jurisdiction over the entire Ernakulam District and its headquarters is at Ernakulam. The works attended to by this Division are Major Irrigation, Anti-Sea Erosion, Flood Control and Inland Navigation works. Certain Block Development works (Minor Irrigation) and administration of navigation in canals are also being attended to by this Division. The Division is under the administrative control of an Executive Engineer. There are 4 Sub-Divisions under the control of this Division. They are:—

1 Irrigation Sub-Division with headquarters at Ernakulam
2 Irrigation Sub-Division with headquarters at Alwaye
3 Irrigation Sub-Division with headquarters at Moovattupuzha
4 Planning and Canals Sub-Division with headquarters at Ernakulam

The Sub-Divisions are under the control of Assistant Engineers and they are further divided into Sections which

are under the control of the Junior Engineers. There are altogether 20 Sections in this Division. They are:—

1	Irrigation Section with headquarters at Thrippunithura.	
2	" " Njarakkal	
3	" " Manassery	
4	Minor Irrigation Section No. I with headquarters at Ernakulam	
5	Minor Irrigation Section No. II with headquarters at Ernakulam	
6	Irrigation Section with headquarters at Parur	
7	" " Perumbavur	
8	Minor Irrigation Section No. I	Headquarters at Alwaye
9	" No. II	
10	Electrical Section with headquarters at Alwaye	
11	Irrigation Section with headquarters at Thodupuzha	
12	" " Pampakuda	
13	" " Munnar	
14	Section No. I	Headquarters at Moovattupuzha
15	Section No. II	
16	Section No. I	Attached to Planning & Canals Sub-Division, Ernakulam
17	Section No. II	
18	Section No. III	
19	Section No. IV	
20	Canal Section with headquarters at Ernakulam	

Periyar Valley Irrigation Division, Perumbavur

The Division which comes under the Superintending Engineer, Irrigation Central Circle, Trichur is working with headquarters at Perumbavur under an Executive Engineer. It attends to the execution of the whole Periyar Valley Irrigation Project. There are six Sub-Divisions under this Division, each under an Assistant Engineer. The Sub-Divisions have a total of 26 Sections, each under a Junior Engineer. The details of the Sub-Divisions and Sections are given below:—

Sub-Division No. I	Planchode	4 Sections
" No. II	Perumbavur	4 Sections
" No. III	Perumbavur	4 Sections
" No. IV	Alwaye	3 Sections
" No. V	Moovattupuzha	4 Sections
" No. VI	Perumbavur	7 Sections

There are, in addition, a Junior Engineer (Head Draftsman) and an Assistant Engineer (Designs) in the Division. The expenditure on the Project from 1956 to 1962 was Rs. 230 lakhs. Almost every year additional funds over and above the original budget allotment are obtained and spent on the Division to the maximum possible extent. In 1963-64 there was a provision of Rs. 44,29,800 for works expenditure.

PUBLIC HEALTH ENGINEERING DEPARTMENT

There are two Divisions of the Public Health Engineering Department in this District functioning with headquarters at Ernakulam and Alwaye respectively. The details are given below:—

Public Health Division, Ernakulam

The Public Health Division, Ernakulam, under the control of an Executive Engineer has jurisdiction over the whole of Ernakulam District. The execution of all Public Health Engineering works in the District and maintenance of all medical buildings are being attended to by this Division. Pucca schemes for Urban Water Supply and Drainage are also executed by this Department. Besides, the construction of medical buildings estimated to cost Rs. 25,000 is also taken up. The Rural Water Supply Schemes, Storm Water Drainage Schemes and the construction of open draw wells under the Local Development Scheme are also the responsibility of the Public Health Engineering Division. Moreover, water supply to Cochin Port and Naval Base is done by this Department. This Division is also in charge of Supplies and Services of Stores for the whole of the Public Health Engineering Department in the State.

The Executive Engineer in this Division is assisted by 5 Assistant Engineers including 2 territorial Sub-Division Officers. The administrative set-up under the Executive Engineer is as shown below:—

Designation	Headquarters	Assisted by	Works attended
1 Assistant Engineer, Water Works	Ernakulam	4 Junior Engineers	Maintenance of Ernakulam Chowara Water works
2 Assistant Engineer, Public Health	,,	2 Junior Engineers	1 Maintenance of Medical Buildings 2 Water Supply & Sanitary Installations of Medical buildings 3 Rural Water Supply 4 L. D. Well Works 5 Construction of Medical Buildings
3 Assistant Engineer, Drainage	,,	3 Junior Engineers	Ernakulam-Mattancherri Drainage Scheme

	Designation	Headquarters	Assisted by	Works attended
4	Assistant Engineer, Drainage	Ernakulam	1 Junior Engineer	Supplies & Services of Stores. Mechanical & Electrical Works
5	Assistant Engineer, Public Health, Perumbavur	Perumbavur	2 Junior Engineers	1 Maintenance of Medical Buildings 2 Water Supply & Sanitary Installation to Medical Buildings 3 Rural Water Supply Scheme 4 Construction of Medical Buildings 5 L.D. Scheme Well-works. 6 Urban Water Supply Scheme to Perumbavur

Public Health Division, Alwaye

The Public Health Division, Alwaye, is under the direct administrative control of the Chief Engineer, Public Health Engineering Department, Trivandrum. It was formed in February 1959 for executing the Project works of the Ernakulam-Mattancherri Water Supply Scheme. Under the Executive Engineer there are two Sub-Divisions at Alwaye and Ernakulam respectively. Each of these Sub-Divisions is under the charge of an Assistant Engineer. There are also five Sections under this Division and each is under the charge of a Junior Engineer.

The first stage of this scheme designed to supply 10.9 million gallons of filtered water per day to serve the anticipated population in 1976 in the Municipalities of Ernakulam, Mattancherri and Fort Cochin and also the Port of Cochin, Naval Base and areas surrounding these, is estimated to cost Rs. 2.76 crores and is expected to be completed by the end of the Third Five Year Plan. The second stage to serve the anticipated population in 1991 of the above areas aims at augmenting the supply of water to 16.5 million gallons per day costing Rs. 76 lakhs and will be taken up later.

In addition to the Ernakulam-Mattancherri Water supply scheme, this Division has also undertaken and completed the augmentation of water supply to the Port of Cochin and Naval Base and to Alwaye town.

Since the inception of this Division in February 1959 till March 31, 1963 an amount of Rs. 132.21 lakhs had been

spent on works. The following figures show the financial outlay on works undertaken by this Division during the four years of its existence.

	Name of work	Amount spent Rs.
	Total	1,32,21,000
1	Ernakulam-Mattancherri Water Supply Scheme	119,69,000
2	Augmentation of Water Supply to Port of Cochin and Naval Base	10,49,000
3	Water Supply to Alwaye town	2,03,000

AGRICULTURE DEPARTMENT

The District Agricultural Officer, Ernakulam, is the head of the Agriculture Department at the District level. He is assisted by an Additional District Agricultural Officer who has also his headquarters at Ernakulam. The functions of the District Agricultural officer are carried out primarily through the staff under the Development Department like the Extension Officers for Agriculture and Gramsevaks. The departmental schemes are fully controlled by him, while he exercises technical control over the funds from the Development Department.

At the headquarters the District Agricultural Officers are assisted by a Technical Assistant who looks after the day-to-day work of the office and by a series of Specialists such as the Plant Protection Assistant (Entomology), the Plant Protection Assistant (Mycology) and the Soil Conservation Assistant. Extension activities and supplies and services are carried out by the Extension Officers for Agriculture and Gramsevaks in the Block areas. The extension activities mean essentially the disemination of improved agricultural practices among farmers through demonstrations, group discussions, training camps etc. The activities connected with supplies and services include the supply of improved seeds and seedlings, fertilisers, plant protection chemicals and equipments, agricultural implements etc. In addition, farmers are provided with necessary finance by way of short, medium and long term loans.

To facilitate the production and distribution of improved paddy seeds two State Seed Farms have been set up at Karimannoor and Chengamanad under the immediate charge of Seed Farm Assistants. The Alwaye Paddy Farm

is also attached to the Seed Farm, Chengamanad. Quality coconut seedlings are produced from three nurseries located at Thodupuzha, Ramamangalam and Edappilli. These nurseries are under the charge of Nurserymen and Agricultural Assistants or Extension Officers, as the case may be. Quality Arecanut seedlings are produced at the Arecanut Nursery at Udayamperur which is under the charge of the Agricultural Assistant. Similarly rooted pepper cuttings are raised at the Pepper Nursery at Kadalikad, Thodupuzha, which is under the Pepper Development Assistant. An important institution that has been established for the production of compost is the Compost Farm at Thrikkakara. The Soil Conservation activities are carried out through two units of engineering staff, each headed by an Overseer under the guidance of a Soil Conservation Assistant. The fertiliser distribution is effected by a net-work of agency depots run by individuals or Co-operative Societies and a chain of Central Manure Depots directly run by the F.A.C.T. Ltd. The District Agricultural Officer controls the quality and quantity of the supplies under the provisions contained in the Fertiliser Control Order. Apart from the various Extension activities the District Agricultural Officers have to guide and supervise the work of the staff of the Agriculture Department in the District. They are also the spokesmen of the Department of Agriculture at the District level and they keep in touch with the people through the various committees and groups in which they are members. They keep liaison with the other departments such as Animal Husbandry, Co-operation, Public Works, Revenue, Industries, Forests, etc., which are also responsible for rural development activities.

The research activities are carried out through specialised institutions set up for the purpose. The Lemon Grass Research Station, Odakkali, manned by a Superintendent and Research Assistant, looks into the various aspects of improvement in Lemongrass cultivation, especially evaluation of grasses with high citral content, manurial and cultural improvements, design of new distilleries etc. Studies on grasses and plants that produce other essential oils are also carried out in this institution. The Pepper Research Station at Thodupuzha under the Pepper Research Officer and an Assistant studies the various aspects of pepper cultivation to increase the yield and reduce the cost of cultivation and thereby increase the

net return from investment. Cultural and manurial experiments are also undertaken in the Research Station. Similar studies on Ginger are carried out at the Ginger Research Station, Thodupuzha, under the Ginger Research Assistant. An oil palm plantation has been established under the auspices of the Central Oil Seeds Committee and it is manned by an Agricultural Assistant. The Rice Research Station at Vyttila studies the improvement that can be brought about in Pokkali rice cultivation, with its own peculiarities and singular problems. Evolution of improved strains and problems relating to manuring are some of the aspects under study. The Research Station is manned by an Assistant Rice Research Officer and Research Assistant. An old institution of the Department of Agriculture in this District is the Coconut Farm at Vyttila. Here certain studies on the manurial and cultural aspects are undertaken. An Agricultural Assistant is in charge of the scheme. A model farm is maintained at Alwaye under the Agricultural Assistant and improved agricultural practices are demonstrated here.

The Central Coconut Committee is having its headquarters at Ernakulam. This Committee is charged with the development and improvement of coconut cultivation. The Government of India maintain a Central Plant Protection Station at Ernakulam. They offer advice and supply pest control equipments and chemicals, whenever diseases and pests break out. However, these institutions are neither under the State Government nor run directly by the Department of Agriculture.

ANIMAL HUSBANDRY DEPARTMENT

The District Veterinary Officer with his headquarters at Ernakulam is the head of the Animal Husbandry Department at the District level. The responsibility for the general supervision of veterinary institutions, implementation of departmental programmes, co-ordination of the activities of the subordinate officers, carrying out the various development programmes relating to Animal Husbandry under the Five Year Plan in the N.E.S. Blocks and administrative control over the staff of the veterinary institutions in this District are vested in the District Veterinary Officer.

The District Veterinary Officer is assisted in his office by a Technical Assistant. Immediately below the District Veterinary Officer there are 18 Veterinary Surgeons who are in charge of the Veterinary Hospitals and Veterinary Dispensaries located in this District. Two Key Village Officers in the rank of Veterinary Surgeons are also under the control of the District Veterinary Officer. In the N.E.S. Blocks the Extension Officers for Animal Husbandry and Livestock Assistants are under the administrative control of the Block Development Officers concerned, but they are under the technical control of the District Veterinary Officer. Besides the Veterinary Surgeons, there are 12 Livestock Assistants each of whom is in charge of a Dispensary.

The following institutions are being managed by the Animal Husbandry Department in Ernakulam District:— 1. Veterinary Hospitals at Ernakulam, Mattancherri, Alwaye, Parur, Perumbavur, Moovattupuzha, Thodupuzha, Thrippunithura and Ankamali. 2. Veterinary Dispensaries having Veterinary Surgeons at Mulanthuruthi, Paingattoor, Mutholapuram, Kuthattukulam, Kolancherri, Puthencruz, Malayattur, Kizhakkamablam and Eloor. 3 Veterinary Dispensaries having Livestock Assistants at Edappilli, Thrikkakkara, Maneed, Varapuzha, Karimkunnam, Kalloorkad, Nayarambalam, Kodanad, Kothamangalam, Karumalloor, and Pampakuda. 4. Key Village Centre, Ernakulam with its 10 Sub-Centres at (a) Edappilli, (b) Udayamperur, (c) Thiruvankulam, (d) Kaloor, (e) Vyttila, (f) Chittoor, (g) Mattancherri, (h) Thrippunithura (i) Mulanthuruthi, (j) Palluruthi and the Key Village Centre Moovattupuzha with its 6 Sub-Centres, at (a) Avoli, (b) Arakkuzha, (c) Valakom, (d) Thrikkalathur (e) Thirumaradi and (f) Palakkuzha. 5. Artificial Insemination Centre, N. Parur with its two Sub-Centres at Chennamangalam and Ezhikkara and the Artificial Insemination Centre at Thodupuzha, 6. All India Poultry Development Extension Centre at Moovattupuzha and Poultry Unit at Alwaye. 7. Piggery Unit at Ankamali, 8. Clinical Laboratory at Ernakulam and 9. District Poultry Farm, Koovappadi.

The Animal Husbandry institutions in N.E.S. Blocks and the staff attached to them except the Extension Officer for Animal Husbandry, will be transferred to the Animal

Husbandry Department when the Stage I period of the Block is completed. Consequent upon this change the institutions transferred from Blocks will be placed under the administrative control of the nearest Veterinary Surgeon and technical control of the concerned Extension Officer for Animal Husbandry.

FOREST DEPARTMENT

The Forest Department in the Ernakulam District functions under the Divisional Forest Officer, Malayattur, with headquarters at Kodanad. He is under the immediate control of the Conservator of Forests, Chalakudi. The Malayattur Forest Division comprises of three Forest Ranges each of which is under a Range Officer. The Ranges are Kodanad, Kothamangalam and Thodupuzha. Besides these Ranges, there are four Forest Depots located at Ernakulam, Mudikal, Kothamangalam and Varapuzha. Of these, the Ernakulam Depot is a major Depot under the control of a Ranger. The Ranges are sub-divided into Sections which are placed under the control of Foresters. The Sections are further sub-divided into Beats, each of which is under the charge of one or more Forest Guards. There are 4 Rangers, 14 Foresters and 55 Guards working in this Division. Wild Elephants are captured and trained in Kodanad Range.

INDUSTRIES DEPARTMENT

Kerala State is divided into three Regions for the administrative convenience of the Department of Industries and Commerce. The Central Region which comprises of the Kottayam, Ernakulam and Trichur Districts is headed by a Regional Joint Director of Industries and Commerce with headquarters at Ernakulam. The District Industries Officer, Ernakulam, is the head of the District Office and he is assisted by a Technical Supervisor, an Organiser for Small Scale Industries and an Inspector of Cottage Industries. He is in over-all charge of all the industrial activities in the District.

The District is divided into 2 Circles for implementation of the Handloom Development Scheme and each Circle is under a Handloom Inspector. Similarly it is divided into

four Circles for administering the Coir Industry Development Scheme and each Circle is under a Coir Inspector. There are 2 Inspectors to assist the District Industries Officer in the organisation, administration and inspection of the Industrial Co-operatives in the District. The Industries programme within each N.E.S. Block is under the direct supervision of an Industries Extension Officer. The Extension Officers explore the possibilities of starting new industries and advise entrepreneurs as to the feasibility of new enterprises. Another major item of work done in the Block areas is to organise the traditional artisans into Industrial Co-operatives and to give financial aid to these institutions, thereby assuring the artisans of regular work and earnings. The Extension Officers are under the technical control of the District Industries Officer. The District Industries Officer is vested with the powers of the Registrar of Co-operative Societies as far as Industrial Co-operative Societies are concerned.

In the Small-Scale Industries sector assistance is given by way of loans, distribution of controlled raw materials, technical advice, supply of machinery on hire purchase terms, import of raw materials etc. All such aid is routed through the District Industries Officer who processes all the applications and makes his recommendations after due inspection. The proper utilisation of the aid given is also checked from time to time. In the Handloom sector, rebate on sales of handloom cloth, aid for conversion of looms, purchase of modern accessories and financial assistance by way of loans, grants etc., are given through the District Industries Officer. Financial assistance is given through the District Industries Officer for the cottage industries and handicrafts also by way of loans and grants. Two Marketing Depots for selling handicraft goods are run under the direct control of the District Industries Officer, one at Ernakulam and another at Cochin. These institutions not only purchase and sell handicraft goods but also serve as a media of publicity for the skilled artisans of the District.

CO-OPERATIVE DEPARTMENT

The Ernakulam Co-operative District came into existence on the 16th June, 1959. The Deputy Registrar

of Co-operative Societies, Ernakulam, is the head of the Department at the District level. He is generally responsible for the effective and proper working of all types of Co-operative Societies which come under the Co-operative Department. Registration of societies, registration of amendments to bye-laws of societies, inspection and enquiries into the affairs of the societies registered and control and supervision of the work of his subordinate officers from the main functions of the Deputy Registrar. There are 3 Assistant Registrars of Co-operative Societies under the Deputy Registrar. One of them - the Assistant Registrar of Co-operative Societies (Administration) - is in charge of all administrative functions including the day-to-day working of the Office of the Deputy Registrar of Co-operative Societies. The Assistant Registrar (Planning) is in charge of the Plan Schemes of the Department and he is assisted by a Senior Inspector (Planning). The third one, viz., the Assistant Registrar of Co-operative Societies for Consumer Stores is in charge of the Consumer Stores. All the Assistant Registrars work under the supervision and control of the Deputy Registrar.

The Co-operative District is divided into 19 circles and each circle is under the charge of an Inspector of Co-operative Societies. The Inspectors are authorised to conduct statutory enquiries, take up inspections, hear arbitration suits, execute awards passed by the Department and exercise the powers of a Tahsildar under the Revenue Recovery Act. The Inspectors are of two grades, viz., First Grade and Second Grade. In addition to the 19 Inspectors in charge of the Circles, there are 2 Liquidation Inspectors, (one at Ernakulam and the other at Alwaye) who are in charge of the societies under liquidation. Further there is a special Inspector for Farming Societies and there are two Inspectors for stores - one in the office and the other in the field. The Farming Inspector is in charge of the organisation and proper working of Farming Societies. His jurisdiction extends to the whole District. The Inspector of Co-operative Societies (Stores) in the field organises and supervises store societies.

The audit of all the Co-operative Societies is done by Auditors who are under the control of the Deputy Registrar of Co-operative Societies (Audit), Kottayam.

LOCAL FUND AUDIT DEPARTMENT

The Local Fund Audit Department has a District office at Ernakulam. The head of the office is the District Inspector of Local Fund Accounts, Ernakulam. He is assisted in his work by an Assistant Inspector. The functions and duties of the Department in the District consist of audit of the accounts of the local bodies like Municipalities, Panchayats etc., set up under various enactments and of the accounts of grants paid by the Government to several institutions. The Auditors visit the offices of the various institutions almost continuously and audit the accounts. The audit reports are forwarded to the Zonal Officer, viz., the Assistant Examiner of Local Fund Accounts, Central Zone, for necessary action.

ECONOMICS AND STATISTICS DEPARTMENT

The District Statistical Officer, Ernakulam, is the head of the Economics and Statistics Department at the District level. He is assisted in his office by two Research Assistants and six Compilers. In addition, he has four Statistical Inspectors under him, two in Ernakulam and one each at Moovattupuzha and Alwaye. There are altogether 23 Investigators working in the field in various parts of the District under the control of the District Statistical Officer. The District Statistical Officer is responsible for the proper conduct of all agro-social-economic surveys sponsored by the Department in the District and for the systematic collection of all statistics required by Government from Estates, Plantations, Industrial organisations, Establishments and the like. He conducts regular field inspections at different stages of each survey so as to assess its progress and improve the quality of the data collected. Whenever required, Training Conferences are also convened at the District level in order to give necessary direction and advice to the Statistical Inspectors and Investigators working in the District for the successful and timely completion of the surveys.

Since the Department of Economics and Statistics is functioning as the central agency in the State entrusted with the task of building up and maintaining reliable statistics in respect of the activities of almost all Government Departments the District Statistical Officer has to do a lot

of co-ordination at the District level in the collection of official statistics. Systematic collection, scrutiny and transmission of Farm, Wholesale and Retail prices of agricultural and other commodities for publication and for compilation of price indices form another important item of work entrusted to the District Statistical Officer. Retail prices of commodities at the Alwaye Centre are also being sent by him every week direct to the Union Ministry of Labour. The services of the District Statistical Officer are also being utilised for the preparation of monthly and quarterly progress and evaluation reports of all Plan Schemes implemented in the District by the various officers. The reports are placed before the District Development Council for discussion and review of the progress of Plan Schemes. The responsibility of preparing the monthly, quarterly and annual reviews of the progress of activities in the N.E.S. Blocks in the District is also vested in the District Statistical Officer.

PUBLIC RELATIONS DEPARTMENT

The District Information Office, the unit of the Department of Public Relations at the District level, was established at Ernakulam on 13th October 1960. The District Information Officer is the head of this Department at the District level. He gathers information relating to the various activities of the Government and focuses public attention on these activities through press releases, pictures, maps, films etc. He also maintains liaison between the local press and all the District offices. Information regarding local reactions to the policies and activities of the Government is also transmitted from the District Information Officer to the head office. Among the other functions of the District Information Officer may be mentioned distribution of publicity materials regarding the Five Year Plans, making arrangements for press conferences or interviews to journalists and State guests, helping tourists with information etc.

CHAPTER XIV

LOCAL SELF-GOVERNMENT

Early History

Kerala had its own local self-governing institutions even from very early days. In the age of the Second Chera Empire (800-1102 A.D.) there were such local assemblies as *Munnuttuvar* (Three Hundred), *Arunuttuvar* (Six Hundred) etc. Thrikkakara, the capital of Kalkarainad, had its assembly of the "Six Hundred". These assemblies checked to some extent the despotism of the rulers and helped in preserving the rights and privileges of the people. Moreover, the *Desams* in ancient and medieval Kerala were sub-divided into *Nadus* and *Nadus* into *Taras* or Villages. Each of these divisions and sub-divisions had its assembly called *Kuttam* which discussed matters of common interest. It must, however, be conceded that judged by modern standards these early local organisations were not representative or democratic in the true sense of the term. They were dominated by the Brahmin clergy and the Nair gentry with the result that their democratic character suffered from a fundamental deficiency. But these organisation functioned actively till the establishment of British supremacy in the 19th century.

Growth of Modern Local Self-Government

The history of the growth of local self-government in Ernakulam District in modern times may be studied with reference to the main pieces of legislation pertaining to the organisation of the Municipalities and Panchayats passed from time to time by the Governments of Madras, Cochin and Travancore. Attempts to introduce self-government in the urban areas started much earlier than in the rural areas. The earliest Municipality in the District is the Fort Cochin Municipality. It was constituted in 1866 under the Madras Town Improvement Act of 1865 and later governed by the Madras District Municipalities Act of 1920 as amended by the Act of 1930. Lord Ripon's

famous Resolution on Local Self-Government dated May 18, 1882 which gave a fillip to local self-government in British India had its repercussions in the princely States of the South as well.

In the Cochin area of the District a committee consisting of officials and non-officials was appointed by the Government in 1890 to supervise the sanitation and conservancy of Ernakulam town and the Government also sanctioned in the same year the payment of a monthly grant to a Committee appointed by the merchants of Mattancherri bazaar to look after the sanitary arrangements there. These committees were superseded in 1896 by regular Sanitary Boards constituted by the Government for the towns of Ernakulam and Mattancherri. A similar board was established later in Thrippunithura also. The function of these Boards was to keep the roads and drains of the towns clean and also to arrange for the lighting of streets. They were entirely financed by the Government and no cesses of any kind were levied. This arrangement continued till 1085 K.E. (1910 A.D.) when the Municipal and Sanitary Improvement Regulation was passed. The Regulation provided for the organisation of Town Councils with a view to introducing municipal administration in towns and ensuring the conservancy and sanitary improvement of urban areas. The provisions of this Regulation were mainly taken from the Madras District Municipalities Act 1884 as modified and amended by the Acts of 1899 and 1909. The year 1085 K.E. (1910 A.D.) indeed marks an epoch in the history of municipal administration in Cochin. Under the Regulation of 1085 (Regulation I of 1085) Town Councils were set up in Ernakulam and Mattancherri. These Councils were composed of a President and a number of Councillors, not less than 6 and not exceeding 12. The system of electing Councillors was introduced and persons qualified under the rules framed under the Regulation were given the power to elect one-third of the number of Councillors of each of the Councils. The rest were nominated by the Government and consisted of officials as well as non-officials. The Presidents of the Councils were either nominated by the Government or elected by the Councillors themselves. The Councils were entrusted with vast powers. In Cochin Regulation I of 1085 worked satisfactorily for a period of 10 years. In 1096 K.E. (1921) a

new law called the Cochin Municipal Regulation (Regulation XI of 1096) was passed with a view to granting more substantial powers to the Town Councils. The strength of the new Councils was increased, the minimum itself being fixed at 15 and there was no maximum fixed by the statute. Not less than two-thirds of the number of Councillors were elected by the voters from among themselves, the remaining one-third alone being nominated by the Government. These Councils were hereafter known as Municipal Councils and their Presidents were called Chairmen. The Chairmen were elected by the Councillors. The official element in the new Councils was very much reduced. Payment of taxes to the Municipalities was made the basis of franchise and everyone who could exercise the right of vote could be elected a Councillor or even Chairman. The Cochin Municipal Regulation of 1096 K.E. (1921) was an improvement on the Madras District Municipalities Act 1920 in two respects. Firstly, it purposely omitted the provision contained in the Madras Act granting power to the Government to dissolve any Municipality. Secondly, it removed the sex disqualification contained in the Madras Act as far as the Councillors were concerned and thus enabled women not only to vote in elections but also to be elected as Councillors. The Cochin Municipal Regulation of 1921 governed the working of the Ernakulam and Mattancherri Municipalities till the passing of the Kerala Municipalites Act of 1960.

In the Travancore area of the District the Regulation of 1069 K.E. (1894) is the earliest piece of legislation in regard to urban self-government. It provided for the conservancy and improvement of towns and the creation of Town Improvement Committees and town funds. The number of members of the Committees varied from five to nine with a permanent official majority. However, the powers of the Committees were limited and their duty was confined to the supervision of sanitary arrangements. The Committees had no power of taxation. A permanent Town Improvement Committee was set up at Alwaye in 1911 (1086 K.E.) under the Regulation of 1076 K.E. (1901) as amended by Regulation I of 1085 K.E. (1910). The Town Improvement and Conservancy Regulation III of 1076 K.E. (1901) which superseded the Regulation of 1069 K.E. authorised local taxation with previous sanction of Government and enabled the Committees to augment

their financial resources. In 1088 K.E. (1913) the town of Parur was brought under the purview of the Town Improvement Regulation. The privilege of electing the non-official members was extended to all the Committees in Travancore and by 1094 K.E. (1929) all of them had non-official majorities. In the next year a non-official president was appointed to the Parur Committee. In 1095 K.E. (1920) a new Regulation was passed on the lines of similar legislation in force in British India at the time. A revised constitution was sanctioned for each of the Town Committees which were now designated Municipalities. The maximum official as well as minimum elected non-official element in the Municipal Councils were fixed. The scope of the municipal activities was enlarged and the obligations and discretionary duties of the Municipal Councils were defined. Though the privilege of electing non-official presidents was extended to most of the councils, Alwaye had now only a nominated non-official president. Eventually when all the Municipal Councils got the right of electing their own presidents, Alwaye too won this privilege. In 1941 was passed the Travancore District Municipalities Act of 1116 which governed the constitution and working of the Municipalities in the Travancore area till the enactment of the Kerala Municipalities Act of 1960. Under the provisons ofthe Actof 1941 all the members of the Municipalities came to be elected and the Councils got elected Chairmen and Vice-Chairmen. The financial resources of the Municipalities were also further augmented and the scope of their activities enlarged. Two other towns in this District, viz., Perumbavur and Muvattupuzha were also brought within the purview of the Travancore District Municipalities Act (1941) in 1953 and 1958 respectively when Municipal Councils were set up in these places. The Kerala Municipalities Act 1960 now governs the Constitution and working of all the Municipalities in the District.

Side by side with the development of self-government in the urban areas self-government in the rural areas also received the attention of the Government. The earliest piece of Panchayat legislation in the Cochin area is the Cochin Village Panchayat Regulation of 1089 K.E. (1914). According to its provisions a Panchayat was started in each of the Taluks of the erstwhile Cochin State as an experimental measure. It consisted of five members

four non-officials of the village nominated by the Government and the fifth, the *Parvathiakaran* (Village Officer), the *ex-officio* member. Payment of an assessment of Rs.50 was made the minimum property qualification for being a *Panchayatdar*. Graduates of recognised Universities and Government pensioners who had been in the superior service were also eligible for membership. The control of the Panchayats was vested with the Dewan Peishkar assisted by the Tahsildars. The duties of the Panchayats were (1) improvement of public lanes and canals, (2) cleaning and repair of public wells and tanks, (3) maintenance and repair of minor irrigation works, (4) maintenance of avenues and water *pandals*, (5) rural sanitation and conservancy and prevention of epidemics and (6) formation of co-operaive societies. The number of Panchayats gradually increased and practically the whole rural area in erstwhile Cochin State came to be covered by the Panchayat Regulation. In 1921 the Cochin Government set up a separate Department to be in charge of Panchayat administration. In 1922 a new Panchayat Regulation was passed which gave wider powers and responsibilities to Panchayats and made provision for the principle of election to be adopted in their constitution. This Regulation made the Panchayats in the Cochin area more democratic than ever before.

In the Travancore area the earliest piece of Panchayat legislation was the Village Panchayat Regulation VII of 1100 K.E. (1925) which provided for the constitution of Village Panchayats. Perumbavur in this District was one of the six places selected in the erstwhile Travancore State for the introduction of this experiment in village self-government. The Village Panchayat at Perumbavur was set up in 1107 K.E. (1932), though it came into working order with regular budget estimate only in 1109 K.E. (1934). Under the provisions of the Regulation of 1110 K.E. (1935) the Village Panchayat consisted of not less than five and not more than 11 members[1]. The Regulation of 1100 K.E. was superseded by the Travancore Village Unions Act of 1115 K.E. (1940), under which Village Unions slightly less powerful than Village Panchayats came into existence. The Village Unions attended to certain public utility services such as cleaning of streets, cons-

1 For a detailed account of the constitution and powers of the Panchayat under the Travancore Panchayat Regulation (1100) see *Trivandrum District Gazetteer*, p. 626.

truction, maintenance and improvement of wells and tanks for the supply of drinking water to the public, maintenance of burial and cremation grounds, control and management of cattle pounds, sanitation, execution of petty irrigation works etc.

Both the Cochin Panchayat Regulation of 1922 and the Travancore Village Union Act of 1940 were superseded in 1950 by the Travancore-Cochin Panchayat Act of the year which governed the Panchayats in this District till the enactment of the Kerala Panchayats Act of 1960.

MUNICIPALITIES

Among the Districts of Kerala, Ernakulam has the largest number of Municipalities, seven out of the twenty-eight Municipalities in the State being in this District. These Municipalities are Ernakulam, Mattancherri, Fort Cochin, Alwaye, Parur, Perumbavur and Moovattupuzha. They are being governed by the Kerala Municipalities Act (1960) which came into force with effect from October 1, 1961. A brief outline of the provision of the Act is given below as it would help the reader to study the working of the Municipalities of the District in the proper perspective.

Kerala Municipalities Act (1960)

The Municipal authorities charged with carrying out the provisions of the Act are:—(1) a Council, (2) a Standing Committee of the Council, (3) a Chairman and (4) a Commissioner.

The Municipal Council is to consist of such number of Councillors as may be notified by the Government in accordance with the following table:—

Municipalities with a population				Number of Councillors
Not exceeding 20,000				16
Exceeding	20,000	but not exceeding	30,000	20
"	30,000	"	40,000	24
"	40,000	"	50,000	28
"	50,000	"	100,000	32
"	100,000			36

All the Councillors are to be elected. Seats are reserved for Scheduled Castes and Scheduled Tribes in the Council. A special feature of the Act is that seats are also reserved

for women in the Council. The number of seats reserved for women is one when the sanctioned strength of the Council is twenty or less and two when it exceeds twenty. The term of office of the Councillors is five years. The Act also provides for nomination by the Council of a person or persons having special knowledge or experience on any subject relating to municipal administration to be special Councillors for the subject. However, there should not be more than two special Councillors on the Council at any time.

Every Council is to elect one of its members as its Chairman and another as its Vice-Chairman. The Chairman convenes and presides over the meetings of the Council. He performs all the duties and exercises all the powers specifically imposed or conferred on him by the Act. He has full access to all the records of the Council while all official correspondence between the Council and the Government is to be conducted only through him. When the office of the Chairman falls vacant or when the Chairman is continuously absent from his jurisdiction for more than fifteen days or is incapacitated, the Vice-Chairman is to exercise the functions of the Chairman. An out-going Chairman or Vice-Chairman is eligible for re-election.

The Standing Committee of the Council is to be elected by the Council from among its own members. It is to consist of five members when the sanctioned strength of the council is twenty or less and seven members when the sanctioned strength is more than twenty. It is to elect one of its members to be its Chairman and he is entitled to hold office as long as he continues as a member of the Committee. The powers and duties of the Standing Committee are to be determined by the Council under bye-laws framed for the purpose. In addition to the powers and duties conferred or imposed by or under the Act or such bye-laws the Standing Committee:—(a) shall supervise the utilisation of the budget grants; (b) shall have access to the accounts of the Council and may require the Commissioner to furnish any explanation which it considers to be necessary as to the receipts and expenditure of the municipal funds; (c) may conduct a monthly audit of the municipal accounts and disbursements for the preceding month as furnished by the Commissioner and (d) may, at the instance of the Commissioner and with the sanction of the Council, write off such sums due to the Council as appear to the Committee to be

irrecoverable. In addition to the Standing Committee, the Council may constitute other Committees for the purpose of exercising such powers, discharging such duties, or performing such functions as it may delegate to them. Moreover, if so required by the Government it has to join with one or more than one local authority in constituting a Joint Committee for any purpose in which they are jointly interested.

The Commissioner of the Municipality is to be appointed by the Government in consultation with the Council. If the Council were to demand his transfer by a resolution passed by a majority vote of its sanctioned strength, Government are bound to transfer him. The Commissioner is responsible for the custody of all the records of the Council, the Standing Committee and other Committees. He is to carry into effect the resolutions of the council and furnish periodical reports to it regarding the progress made by him in carrying them out. He is also invested with certain emergency powers to be exercised by him for the service and safety of the public. In short, he is to exercise the executive power for the purpose of carrying out the provisions of the Act and is directly responsible for the due fulfilment of the purposes of the Act.

Every Municipal Council may levy (1) a property tax, (2) a profession tax, (3) a tax on animals, vessels and vehicles, (4) a show tax, (5) a tax on advertisements and (6) a duty on certain transfers of immovable property in the shape of an additional stamp duty.[1]

The property tax is to comprise of (a) a tax for general purposes and (b) a service tax comprising of a water and drainage tax, a lighting tax and a sanitary tax. These taxes are to be levied at such percentages of the annual value of lands or buildings or both as may be fixed by the Council. However, the aggregate of the percentage so fixed is not to be less than 10 per cent and more than 25

[1] In regard to the taxes permitted to be levied by Municipalities there are certain differences between the provisions of the Kerala Municipalities Act (1960) and the provisions of the old Acts which it replaced in the Malabar, Travancore and Cochin areas of the State. The Municipalities in the Travancore area stand to benefit from the new levies of "Duty on Transfer of Property," Tax on Carriages and Show Tax. Besides the above levies, the Municipalities in the Cochin area have by the new Act secured Advertisement Tax as a new source of income. All these taxes were already in force in the Malabar area except the Tax on Advertisements which alone is thus a new source of income for Municipalities there. Against this they stand to lose a good slice of their income from 'Duty on Transfer of Property' which is reduced to 3% from 5%.

per cent of the annual value of all lands or buildings or both and the tax for general purposes, the lighting tax and the sanitary tax should not be less than the following minimum rates:—

		Minimum rate
1	Tax for general purposes	5 per cent
2	Lighting tax	2 ,,
3	Sanitary tax	3 ,,

The profession tax may be levied from those who exercise a profession, art or calling or transact business or hold appointment, public or private, within the Municipality for not less than 60 days in the aggregate. The rate of tax is subject to the maximum prescribed for each income group in the Schedule to the Act. The maximum half-yearly tax leviable ranges from Rs. 125 for an half-yearly income of more than Rs. 15,000 to Rs. 3 for an half-yearly income of Rs. 600 but not more than Rs. 1,200.

The tax on animals, vessels and vehicles may be levied by the Council at rates determined by it provided that they do not exceed the maximum laid down as follows in the Schedule to the Act.

		Half-yearly Tax Rs.
For every	elephant	12
,,	camel	6
,,	horse, mule or pony	3
,,	bullock or bull or male buffalo	2
For every	pig	2
,,	donkey	1
,,	dog	1
,,	motor boat or steam launch plying for hire and carrying more than six passengers	30
,,	steam or motor tug	50
,,	barge or other vessel attached to or attachable to a steam or motor tug	25
,,	other motor boat or steam launch	15
,,	cabin boat	2.50
,,	vallom	2
,,	cart or carriage drawn by horses	6
,,	carriage drawn by other animals	4
,,	hand cart or push cart	2
,,	bicycle, tricycle or cycle rickshaw	7

The show tax may be levied by the Municipal Council at the rate of two Rupees for Cinematograph exhibition and five Rupees for other shows.

The duty on transfers of property may be levied in the form of a surcharge on the duty imposed by the Kerala Stamp Act (1959) on every instrument pertaining to sale, exchange, gift, mortgage with possession, or lease in perpetuity of immovable property within the limits of the Municipality at such rates as may be fixed by the Government. The tax on advertisements may be levied from every person who erects, exhibits, fixes or retains upon any land, building, wall or structure any advertisement or who displays any advertisement to public view in any manner whatsoever in any place, whether public or private, provided that the rates conform to the maximum and minimum laid down by the Government for the purpose.

In addition to the taxes specified above, the Council may *with the sanction of the Government levy a surcharge* on any tax other than profession tax levied by the Council for the purpose of providing any specific civic service or amenity provided that such surcharge does not exceed ten per cent of the amount of the tax.

Every Municipality constituted under the Kerala Municipalities Act 1960 is also vested with routine civic functions such as those relating to the provision of water supply, lighting and drainage, maintenance and repair of streets, numbering of buildings, grant of permission to construct buildings, control over abandoned lands and insanitary buildings, grant of licence for places in which animals are kept, provision of public cart stands, licensing of places for disposal of the dead, compulsory registration of vital statistics, compulsory vaccination etc. etc.

The constitution and working of each of the seven Municipalities in the Ernakulam District are described below.

ERNAKULAM MUNICIPALITY

Ernakulam is one of the major Municipalities of the State. It has an area of 10⅜ sq. miles and a population of 117,253 according to the 1961 Census. For the purpose of administration and election the Municipal area is divided into 30 wards. The Municipal Council consists of 32 members of whom two are elected from reserved seats—one for Anglo-Indians in Ward II and another for Scheduled Castes in Ward XXVI.

Apart from the income from taxes the Municipality derives income from various remunerative enterprises. It maintains 3 public markets, 15 slaughter houses and meat stalls, 2 bus stands, 6 landing places and 15 cart stands. Grants from the Government are also received for specific purposes like maintenance of parks, stadium, vehicle tax, compensation and relief settlement.

Communication, lighting, public health and water supply form the chief items of activities of the Municipality. The communication establishment is headed by a Municipal Engineer. The length of roads including Trunk Roads in the town is as follows:—

	M.	F.	Ft.
Total	66	0	90
Asphalted roads	27	4	461
Metalled roads	34	2	196
Non-metalled roads	4	1	93

All the roads except Mahatma Gandhi Road, Shanmughom Road, Banerji Road and Broadway which are under the control of the Public Works Department are maintained by the Municipality.

Electric lights are installed in almost all parts of the town. The lighting is attended to by Messrs. The Cochin State Power and Light Corporation Ltd. The total number of electric lights is 2,044. The ornamental mercury vapour lamps are installed in all important junctions. The junctions of the Mahatma Gandhi Road are lit with tube lights. Some bye-lanes are lit with kerosene oil lamps.

The Health Officer is at the apex of the Public Health establishment of the Municipality. The Registrar of Vital Statistics is a duly qualified Health Inspector. In addition, there are six midwives under the Council. Four Maternity and Child Health Centres are functioning efficiently under a lady doctor. Vaccination is regularly conducted in the town. Arrangements for the registration of births and deaths have been made at three places in the town in addition to the Municipal Office. Leprosy patients are sent to the E.P. Leprosy Hospital at Puthencruz for treatment and the Municipality is paying Rs. 23 per patient per mensem.

All the public latrines and urinals are cleaned daily in the morning and evening. In addition, 4,907 private

latrines are also conserved and kept in good condition by the conservancy staff. All the streets are regularly swept. The night soil collected is removed to the sewage treatment plant at nearby Elamkulam.

The Municipality manages a Beggar Relief Settlement at Ponnurunni. It is regularly visited by a doctor and medical aid is rendered.

The town has a very good water supply system. The supply is made by the Government but the distribution is managed by the Municipality. The rate of the cost of water supplied is 75 nP. per gallon. The source of supply is from the Alwaye river.

The Municipality maintains a Rest House and a Town Hall. The Town Hall is rented for meetings and entertainments in the town. Three beautiful public parks, viz., the Subhas Bose Park, the Tilak Park and the Annie Beasant Park, are maintained by the Municipality. Besides, the Municipality has nine bus-stop shelters under its control. There are three municipal cremation grounds in the town.

MATTANCHERRI MUNICIPALITY

Mattancherri town has an area of 2.69 sq.miles and a population of 83,896 (1961 Census). For the purpose of Municipal administration it is divided into 30 wards of which two are double-member wards, one being reserved for Scheduled Castes and Tribes and another for Anglo-Indians. The strength of the Council is thus 32.

Taxation under the Kerala Municipalities Act forms the main source of income for the Municipality. Remunerative enterprises also form an important source of income. The Mattancherri Municipality owns two Public Markets—one vegetable and one fish—and two slaughter houses. There are also ten landing places and eight cart stands which are leased out. Government grants and loans are also sources of income for the Municipality.

Communication, lighting, public health and sanitation are the major activities of the Municipality. The communication establishment consists of one Engineer, a Supervisor, four Public Works Maistries, two Peons and a Clerk. 4 miles 3 furlongs and 532 feet of the asphalted trunk roads

and 13 miles 5 furlongs and 606 feet of asphalted main roads are maintained by the Municipality. The remaining roads to a length of 11 miles 3 furlongs and 17 feet are metalled with laterite and gravel.

The Municipality maintains a workshop which attends to departmental repairs and renewal of rubbish carts, night soil carts and buckets and provides dust bins and other rolling stocks. One blacksmith and a carpenter are working here as full time employees. This system is considered more economical and convenient than the contract system.

There are 275 kerosene oil lamps and 737 electric lights in the Municipal area. Out of 10 mercury vapour lights installed at important junctions of the roads, 8 are provided with donations from the public. Electricity is supplied by a private company, viz., Messrs. Cochin Electric Company Ltd.

The Municipal Health staff is headed by a Health Officer. The Municipality maintains one Isolation Hospital for treatment of infectious diseases. Two wards were constructed at the Adur Leprosy Hospital at the expense of this Municipality for housing treatables and burnt-out patients sent for treatment from Mattancherri. Besides, the Council is paying maintenance charge at Rs. 28 per head per mensem to Puthencruz Leprosy Hospital, a private institution, where also patients are admitted for treatment.

A Maternity and Child Health Centre is maintained by the Mattancherri Municipality. It is attended by two honorary lady doctors. Undernourished children are given free supply of milk daily under the UNICEF Milk Feeding Scheme. Five midwives conduct house-to-house visits for registering ante-natal cases and giving advice to expectant mothers. A Births and Deaths Registrar is employed for the work of compulsory registration of deaths and births occurring in the town.

Vaccination is regularly conducted in the town with the help of five Municipal vaccinators. There are 11 public latrines and 5,750 private latrines in the town. They are kept clean by 112 scavengers employed by the Municipality. Night soil is taken in lorry to the Municipal trenching ground outside the town and disposed off by trenching. Rubbish is utilised for reclamation of low lying and water logged areas. Anti-mosquito operations are carried out

by fourteen anti-mosquito workers and three maistries under the supervision of one special Sanitary Inspector. Breeding places of mosquitoes are treated with larvicidal oil. Pistia clearance is also conducted.

The town has a protected water supply. The main source of drinking water is Alwaye river and this is made available through public hydrants installed in various parts of the town and where the supply is not available, water from wells and tanks is being used by the public. In places where no regular supply is available hand pumps are also used. There are 1,649 house service connections and 570 street hydrants. The Municipality also maintains three public wells and also pucca bath rooms at Eravelli and Manthara roads which are farmed out for collection. The Municipality pays the cost of protected water at the rate of 25 nP. per 1,000 gallons to Government.

The Mattancherri Municipality maintains no library or reading room. But it gives grants of varying amounts to the important libraries and reading rooms and other institutions run by the public. Nearly 18 institutions receive such grants.

There are two cremation grounds and one burial ground maintained by the Municipality. Besides, there are seventeen private burial and cremation grounds within the town. All of them are maintained in good sanitary condition.

The Municipality takes active interest in ameliorating the living conditions of scavengers and sweepers employed in the town. Most of them have been provided with quarters. Uniforms and chappals are supplied to them every year. Washing soaps are supplied monthly. Sundays are allowed as over-working days. These employees also get benefits of earned leave and sick leave.

FORT COCHIN MUNICIPALITY

This Municipality which is the smallest in the State has an area of 1.01 sq. miles and a population of 35,076 persons according to the Census of 1961 and it comprises the revenue village of Fort Cochin. The Municipal area is divided into 21 electoral wards while the strength of the council is 24 of which one seat is reserved for Scheduled Castes and Scheduled Tribes and two seats for women.

The Council has a Standing Committee of five members elected under Section 13 of the Kerala Municipalities Act 1960. The Chairman of this Committee represents the Council on the Cochin Harbour Advisory Committee.

The Fort Cochin Municipality levies all the taxes prescribed in the Kerala Municipalities Act (1960). In addition to the income from taxes, the Municipality gets revenue from some of the remunerative enterprises owned by it. It has been conducting an efficient ferry service connecting the mainland of Cochin and Island of Vaipin from April 1, 1948. The Council mintains a Travellers Bungalow containing two sets of rooms. Further, it owns 3 daily markets, 2 bus stations, 2 slaughter houses, 2 bunk shops and a cattle pound. The Municipality also derives income from the lease of a canal, viz., Kalvetty canal. The right to levy and collect tolls at the Albuquerque Jetty has also been leased out. Moreover, the Council has also leased out the restaurant rooms attached to the Vaipin ferry jetty for a period of three years and a cinema theatre site for a period of five years. Government grants also form a source of income for the Municipality. The grants are given for such specific purposes as Special Dearness Allowance, Motor Vehicles toll compensation, library grants, compost manure production, purchase of night-soil carts etc.

The major activities of the Municipality may be considered under the following heads:—(1) Communication, (2) Lighting, (3) Public Health (4) Sanitation, (5) Water Supply and Drainage, (6) Cultural Activities, (7) Town Planning and Slum Clearance.

The communications establishment is headed by a Municipal Engineer. The total length of the roads maintained in the municipal area is 12 miles 2 furlongs and 107 yards. Besides there are lanes of less than 20 feet width to a length of 4 miles and 144 yards. The length of each category of roads is given below.

	M.	F.	Y
Total	12	2	107
Dustless surfaced roads	7	5	57
Metalled roads	0	1	130
Gravelled roads	4	1	114
Earthern roads	0	2	26

The total number of electric lights is 563 in addition to 3 mercury vapour lamps installed at the Boat camber and one at the south western corner near the Victoria Boat Jetty. Moreover, the Municipality also maintains 97 kerosene oil lights. The electric street lighting is being managed by the Kerala State Elctricity Board.

The Municipality maintains an Isolation Hospital for the treatment of infectious diseases. It also gives a monthly contribution of Rs. 50 to a dispensary maintained at Vaipin by the St. Andrew Health Fellowship Association, Cochin.

The Public Health establishment of the council consists of one Health Officer, two Health Inspectors, eight Sanitary Officers and one Drainage Maistry. Another Health Inspector looks after the Anti-Filaria Scheme. A Births and Deaths Registrar is employed by the Council for the work of compulsory registration of deaths and births occurring in the town. It also employs 3 Maternity Assistants and 2 *Ayas* for attending to maternity cases in addition to ante-natal and post-natal duties within the municipal area. One of these Maternity Assistants is appointed mainly for work in Vaipin which is separate from the mainland back-waters. The Public Health staff also attends to vaccination work. The one disease highly endemic in Fort Cochin is filariasis. The Council, therefore, employs one Health Inspector, one Field Assistant and 8 Mazdoors for anti-filaria work.

The Conservancy staff of the Fort Cochin Municipality consists of two Health Inspectors, 8 Sanitary Maistries, one Drainage Maistry and 121 Sanitary workers. They attend to the sanitation and conservancy of the town. The Council maintains 17 public latrines with 78 seats in the municipal area. In addition, 2,940 private latrines are also conserved and kept in good condition by the conservancy staff. In order to attend to conservancy work the Municipality maintains 80 night soil carts, 10 rubbish carts, 2 sewage carts and a lorry.

The Council has also a programme for manufacturing compost manure with the night soil and rubbish collections. There is great demand for the compost product and it is sold to the public at Rs. 5 per ton.

Fort Cochin has a protected water supply system. The source of supply is from the Alwaye river and water is

stored in a reservoir tank with a capacity of 77 thousand gallons. The distribution of water is made through the public fountains erected in different parts and house service connections are granted to private houses. In 1961-62 the number of public fountains was 167 and house service connections 231. The Municipality also maintains 131 tube wells for supplying water to the public.

There is no drainage scheme for this Municipality. The existing open drains are, however, kept in good condition, Necessary repairs are carried out, whenever necessary.

Fort Cochin Municipality has no school under its control. However, it maintains one public library and two reading rooms. One of the reading rooms is attached to the Municipal Jubilee Library which is in the Municipal Office premises and the other is situated in the Vaipin island. The Council also maintains a radio set at Fort Maidan and another at Fort Cochin.

The Fort Cochin Municipality has its own town planning scheme. The most important of these is the construction of a 50 feet wide road, the work being taken up under an allotment sanctioned for the town improvement schemes under the Third Five Year Plan. The Municipality has also undertaken a few Slum Clearance Schemes. One of the most important of these is the Eravelli slum clearance scheme taken up during the Second Plan period. Under this scheme 56 tenements were built and allotted to erstwhile slum families for occupation at a rent of Rs. 12 per mensem for each tenement. A sum of Rs. 10,00,000 has been placed at the disposal of the Fort Cochin Municipality by the Government for slum clearance work under the Third Five Year Plan. As the first stage of the work it is proposed to construct 31 tenements in Block I in Ward No. VII which is the worst slum area in Fort Cochin. The estimated cost of the scheme amounts to Rs. 1,83,700. There is also another scheme for the construction of 30 tenements in Block II, in the same ward at an estimated cost of Rs. 1,95,750.

ALWAYE MUNICIPALITY

Next to Fort Cochin, Alwaye is the smallest Municipal town in the State. The area within the Municipal limits is 2.77 sq. miles and the total population 20,863 (1961

Census). The Municipal Council has 16 members elected from 16 single member electoral wards.

Taxation constitutes the chief item of revenue to the Municipality. Among the remunerative enterprises markets form the major source of income. There are two daily and two weekly markets. The Municipality also runs two cart stands and one slaughter house. Further, it gets income fiom licence fees, cattle pound etc. Grants and loans from the Government are additional sources of revenue.

The major municipal activities are communication, lighting, public health and sanitation. The Muncipal Engineer is the pivot of the Engineering Establishment in the Municipality. In his functions he is assisted by one Second Grade Public Works Overseer. The total length of the roads maintained in the town is 11 miles 1 furlong 90 Ft. This includes both bituminous and ordinary.

No kerosene oil lamp is used for street lighting. All the streets are lit by electric lights. In 1961-62 there were 1,021 electric lights in the Municipal area.

The Municipality runs no medical institutions. It has also no Health Officer to attend to the Public Health activities in the town, but there are two Health Assistants. Vaccination is regularly conducted. In connection with sanitation 15 miles of roads are swept daily and four miles of lanes periodically. The Municipality maintains 9 public latrines and four urinals. Night soil and rubbish are carried in a lorry to the Municipal night soil depot for the production of compost. Besides, there is a trenching ground in the town.

There is a protected water supply system in Alwaye. The source of supply is from the Alwaye river. The distribution of water is made through the public fountains erected in the different parts of the town. Fifty-two water taps are installed in the high level areas of the town. Besides there are eleven public wells maintained by the Municipality. No house connection is given and the Municipality collects no tax on water supply.

The Alwaye Municipality runs a well equipped public library and reading room. The library and reading room receives Rs. 350 a year as a grant from the Government. Apart from this the Kerala Sports Council gives an annual

grant of Rs. 121 for the Municipal Sports Club. A beautiful park maintained by the Municipality is the most important place of public resort in the evenings.

PARUR MUNICIPALITY

Parur Municipality has an area of 3.52 sq. miles (8.62 sq. km.)and a population of 20,852 as per the Census of 1961. The town is divided into 15 electoral wards of which one is a double-member ward with one seat reserved for Scheduled Castes and Scheduled Tribes. The strength of the Council is thus sixteen. Apart from the Standing Committee, the Municipality has also constituted a few sub-committees to report on specific matters.

The Municipality levies all the taxes prescribed under the Kerala Municipalities Act (1960). Apart from these taxes it gets revenue from remunerative enterprises. It owns a public market comprising a vegetable and fish market. The market forms the main remunerative item for the Municipality. The other items include a cart stand, a bus stand, a slaughter house and a cattle pound. Government grants and loans also form a source of income. They are given for specific purposes such as construction of markets and bus shelters and compost production.

The major activities of the Municipality relate to public health and sanitation and public safety and convenience. The public health staff consists of one Health Inspector, one Sanitary Overseer, one Vaccinator-cum-Registrar of Vital Statistics and one midwife. Vaccination is regularly conducted. The midwife visits expectant mothers and attends to labour cases. The Municipality also gives a grant at the rate of Rs. 15 per mensem to a *Vishavaidyasala*.

Twenty-four sweepers are employed for the purpose o road conservancy and a lorry owned by the Municipality is used for removing the rubbish and watering the roads. The Municipality maintains two public latrines and two public urinals. Twelve persons are employed for private scavenging and compost production.

Parur has no protected water supply. There are nine wells in the town maintained by the Municipality.

At Vedimara there is a public burial and cremation ground owned by the Municipality. In addition, there are 10 such private grounds maintained by various castes in the town.

Electric lights are provided in most of the roads, the total number in 1961-62 being 780 out of which 22 are mercury vapour lights. A siren is used five times a day to announce the time.

The permanent Public Works establishment in the Municipality is constituted with a Public Works Overseer as its head. It conducts a ferry service in Koodamkulam.

There is a well equipped Municipal Library and Reading Room in Parur. It has a collection of nearly 5,000 books in English and Malayalam. The Reading Room subscribes for 10 English and 14 Malayalam dailies and periodicals. A permanent Librarian is in charge of this Library and Reading Room. Apart from this the Municipality also gives grant-in-aid to five other libraries. The Public Park maintained by the Municipality forms the most important place of resort to the public in the evening. A Radio with loud speaker arrangements is attached to it.

PERUMBAVUR MUNICIPALITY

The area within the Perumbavur municipal limits is 5.25 sq. miles and the total population 16,147 (1961 Census). The town is divided into fifteen wards of which Ward No. IV has a seat reserved for the Scheduled Castes also. The Municipal Council has thus 16 members.

The municipal taxes form the major source of income of the Municipality. Besides, the Municipality gets revenue from some items of remunerative enterprises owned by it. There are three general markets and one cart stand in the Municipal area. Three shop rooms in the municipal vegetable market are let on a monthly rent of Rs. 30 per room. The Municipality owns a pucca bus stand on the southern side of the Subhas Maidan and it earns a good amount as bus stand fee. Levy of licence fees on dangerous and offensive trades is also an important source of revenue. The other items of revenue are Government grants and contribution.

The Health Inspector is at the apex of the Public Health establishment of the Municipality. In the discharge

of his duties he is assisted by one sanitary worker, one midwife and two peons. The midwife pays visits to expectant mothers and attends to delivery cases also. Milk is supplied to children below the age of 14. Vaccination is conducted regularly in the town. There are eighteen sweepers, three scavengers and two drain workers to attend to general sanitation work. The main activities in the field are sweeping of roads, mosquito control and cleaning of drains and urinals. About nine urinals are provided in different parts of the town. There is a septic tank latrine constructed in the Cattle Market.

There is no protected water supply in Perumbavur. In times of water scarcity a lorry is used to distribute drinking water to the inhabitants of the town. 678 street lights and 10 mercury vapour lamps are installed in this Municipality and they are lit throughout the night. During the rainy season a free ferry service is provided between Wards No. II & No. V for the convenience of the travelling public, particularly those going to the Rayons factory. A Radio Kiosk with one loud speaker is maintained for the benefit of the public.

One Public Works Overseer and one Works Superintendent have been appointed to supervise the public works executed by the Municipality. All roads in the town are kept in good condition.

The Perumbavur Municipality runs a library with a free reading room and a club. A committee constituted by the Council is in charge of the administration of the library. The Municipal Chairman and the Municipal Commissioner act as the President and Secretary respectively of this Committee.

MOOVATTUPUZHA MUNICIPALITY

The area of this Municipality is 5.085 sq. miles and the population is 22,977 (1961 Census). The Municipal Council consists of 16 members elected from 16 electoral wards. There is no reservation of seat in the Council for Scheduled Castes and Scheduled Tribes as the population of these communities is not to the extent required for such reservation under Section 7 of the Kerala Municipalities Act 1960.

Taxation under the provisions of the Kerala Municipalities Act forms a major source of income to the Municipality. Markets, slaughter houses, cattle pound and sale of rubbish form the main items of remunerative enterprise. The right of collection of fee from the markets and slaughter house is given in public auction. Grants and loans from the Government and licence fees are also among the other sources of revenue.

The entire Public Health activities in the town are carried out under the direct supervision of the Municipal Health Inspector. He is assisted by one Health Assistant, a midwife and a peon in addition to contingent workers comprising of four scavengers, eight sweepers and three drain workers. One-man rubbish carts are provided for the use of the contingent workers for the transportation of rubbish to their destination. Main roads are cleaned daily. Private scavenging has not yet been started in this Municipality. But it maintains 9 public latrines and four urinals.

In addition to his normal duties the Health Assistant attends to the registration of births and deaths. Vaccination is also regularly conducted in the town. There is a Municipal Midwife to attend to delivery cases within the town but she also visits houses to give advice to expectant mothers. A milk distribution centre is functioning in Velloorkunnam from where milk supply to expectant mothers and children is arranged through the midwife. The Municipality gives a monthly grant of Rs. 10 each to two Ayurvedic practitioners, one for anti-poison treatment and the other for *Balachikilsa* (treatment of children).

There is no protected water supply in this town. The main sources of water supply for drinking and bathing purposes are private and public wells, tanks and rivers. The Municipality maintains 15 wells and 11 bathing ghats in various parts of the town.

All important roads are provided with electric lights. The total number of street lights installed at the end of 1961-62 was 475. During the rainy season ferry canoes are provided in Kaliyar, Moovattupuzha and Thodupuzha rivers. The Municipality also maintains a Radio Kiosk in Ward No. XV.

Financial Position

Two detailed statements given as Appendices I & II at the end of the Chapter present a complete picture of the financial position of the seven Municipalities of the District in 1962-63.

TOWN PLANNING

Development Plan for Greater Cochin

Ernakulam is one of the Districts of Kerala where Town Planning work has been taken up seriously by the Government. In view of the proposal for the formation of a Cochin Corporation comprising of the Municipal towns of Ernakulam, Mattancherri and Fort Cochin and the surrounding areas including, perhaps, the Willingdon Island, the planned development of the Ernakulam-Cochin Region assumes special significance. The Town Planning Department of the State which has a Regional Office at Ernakulam under a Senior Town Planner is at present engaged in working out the details of this project. It aims at the preparation of a Comprehensive Development Plan for the vicinity-region of Cochin which is being urbanised at an incredibly fast rate and where planning control has to be extended in view of the substantial changes taking place or are likely to take place in land use. In evolving a Development Plan for Greater Cochin, its unique functional status is being kept in view. This may be summarised as follows:—

1 Cochin as the focal point of the region or hinterland of the Cochin Harbour
2 Cochin as the industrial capital of Kerala State
3 Cochin as the administrative headquarters of the Ernakulam District
4 Cochin as the centre of a metropolitan area—the present and probable areas of strong daily contact and intimate relationship

All localities which are now in intimate relationship with the central core would be included for planning purposes. The boundaries would be further adjusted taking into account such factors as industrial potential and plans for future development, administrative convenience etc. Towards the end of 1961 planning studies were initiated with reference to an area of about 300 sq.

miles falling within a radius of 10 to 15 miles from Cochin and including 6 Municipal towns, viz., Ernakulam, Mattancherri, Fort Cochin, Alwaye, Perumbavur and Parur and about 40 Panchayats. With its strategic location, its geographical position at the confluence of lakes and rivers facilitating excellent inland navigation, its road, rail and air line facilities, and above all, its value as a focal point for all the import and export trade of the State of Kerala and portions of Mysore and Madras States, the Ernakulam-Cochin area affords enormous scope for development in the decades to come. Attracted by the natural facilities offered by the area and also by the availability of cheap power and water, several industries got established here in the recent past. The establishment of more industries is on the way.

Nevertheless, the development of the area has been taking place in a haphazard manner without any control, resulting in land speculation, spiralling land values, unhygienic housing, growth of slums, congestion on traffic routes, inadequacy of housing, lack of compactness in development, urban sprawl, excessive distances to places of work, shopping centres, educational institutions etc. It is, therefore, imperative that a long range comprehensive plan is immediately drawn up for the vicinity of Cochin which should be scientifically delineated first. The principles of planning accepted for this area by the Town Planning Department are the following:—(1) the balancing of population and industry so that no daily mass movement of population to and from work and home is necessary (2) the improvement of transport routes to take the best advantage of existing facilities and to make the most effective use of the resources available for constructional improvements (3) the strengthening of the pattern of service centres in such a way as to secure for the majority of the population concerned a reasonable accessibility to all grades of services and (4) the preservation of good agricultural lands and provision of improved facilities for agriculture and marketing of commodities.

The scheme for the planned development of the Ernakulam-Cochin region is proposed to be taken up in two stages. The first one is the preparation of an Interim Development Plan and the second, the preparation of a Comprehensive Development Plan. Although under the existing statutes there is no provision for the preparation

of an Interim Plan, yet this would serve as a basic tool to guide the development activities at least in the public sector until the Comprehensive Plan is finally drawn up. Moreover, detailed plans could be notified and drawn up for priority development areas on the basis of this tentative framework. The long range plan which takes into consideration the basic needs of the area upto 1991 would include the regional land use proposals, regional communication pattern, regional utility and services schemes, the phasing of the plan, capital budgeting and finding out effective legal and administrative machinery for the implementation of the various schemes. This plan would also include detailed Development Plans for all the Municipal towns in this area and also new Townships that are likely to be set up under the Regional Plan.

It would be relevant in this connection to refer to the steps proposed to be taken to provide a legal framework for the Development Plan and to ensure its speedy implementation. It may be noted that the Travancore Town Planning Regulation of 1108 K.E. (1932-33), as amended in 1960, is now in force in the erstwhile Travancore-Cochin area of the District while the Madras Town Planning Act of 1920 is applicable to the erstwhile Malabar area. While the Fort Cochin Municipality has its own Town Planning Committee constituted under the provisions of the Madras Town Planning Act, there are no such committees in the other Municipalities of the District. In order to have a unified law regarding Town Planning applicable to the whole State, a Kerala Town and Country Planning Bill has been prepared by the Town Planning Department and the same is under the consideration of the Government. In the meantime, the Government propose to constitute a Joint Town Planning Committee for the Cochin Region under the Travancore Town Planning Regulation of 1108. The Committee would include representatives of various local authorities, Government officials, etc., and would exercise the powers of a Municipal Council. The Interim Plan that is being prepared by the Town Planning Department for the Cochin area would be presented to this Committee for acceptance. Although the Interim Plan is not a legally valid document, yet priority areas for development could be notified by the Joint Town Planning Committee for the preparation of detailed plans. Also, some sort of control would be exercised on development on the basis of the

Interim Plan. Government are also considering the constitution of two separate Statutory Authorities, one for the implementation of the Development Plan for the Region excluding Water Supply and Drainage Schemes and the other for Water Supply and Drainage Schemes alone.[1] Necessary legislation for the above is being drafted.

PANCHAYATS

The early history of the Panchayats in the District has already been sketched at the beginning of this Chapter. There are 101 Panchayats functioning under the provisions of the Kerala Panchayats Act 1960. Each of them is governed by a representative body elected for a period of five years on the basis of adult franchise.[2] For the purpose of election the whole Panchayat area is divided into wards. The number of members in each Panchayat is fixed on the basis of population. According to the rules framed under the Panchayats Act 1960, Panchayat areas with a population not exceeding 10,000 at the latest Census are to elect 7 members and those with a population exceeding 10,000 are to elect one additional member for every population of 3,500 subject to the condition that the minimum strength of a Panchayat shall not be less than 7 and the maximum more than 15. In those Panchayats where the Scheduled Castes and Tribes constitute 5% of the population a seat is reserved for them. The Panchayats may also give representation to women through nomination. The President and the Vice-President are elected by and from among the members of the Panchayat. If the office of the President falls vacant, an acting President can be appointed by the Director of Panchayats until a new President is elected. The President, Vice-President and other members of the Panchayat constitute the administrative body of the Panchayat. The President has full access to all records of the Panchayat, and he convenes meetings, forwards half-yearly reports to the Deputy Director of Panchayats and exercises all the powers conferred on him under the Act. Normally the

1 For details of the proposed Water Supply and Drainage Schemes see Chapter XVI.

2 Elections to the Panchayats under the Act of 1960 were conducted for the first time towards the close of the year 1963 and the new Panchayat Committees assumed office on January 1, 1964.

Panchayat meets once in a month. Special meetings also can be convened. One-third of the total number of members forms the quorum for ordinary meetings. But, for special meetings, the quorum is half of the total number. The Panchayat constitutes functional committees for specific activities like sanitation, public health, education and communication. Such committees may consist of both members of the Panchayat and others who are interested in public welfare. It may constitute ward committees also. In case of emergency the President or the executive authority can order any work of the Panchayat to be executed without the previous sanction of the Panchayat. But such action should get the ratification of the Panchayat Committee at its next meeting. The President should report to the Director of Panchayats about the proceedings of the meeting within 3 days after the meeting of the Panchayat.

Functions of Panchayats

The following are the functions of Panchayats under the Kerala Panchayats Act 1960.

1 the construction, repair and maintenance of all public roads in the Panchayat area other than roads classified as National Highways, State Highways, the roads of the Malabar District Board and of all bridges, culverts, road-dams and cause-ways on such roads;

2 the lighting of public roads and public places;

3 the construction of drains and the disposal of drainage water and sullage;

4 the cleansing of streets, the removal of rubbish heaps, jungle growth and prickly-pear, the filling in of disused wells, insanitary ponds, pools, ditches, pits or hollows, and other improvements of the sanitary condition of the Panchayat area;

5 the provision of public latrines and arrangements to cleanse latrines, whether public or private;

6 the opening and maintenance of burial and burning grounds;

7 the sinking and repairing of wells, the excavation repair and maintenance of ponds or tanks and the construction and maintenance of water-works for the supply of water for washing and bathing and drinking purposes;

8 preventive and remedial measures connected with any epidemic or with malaria;

9 control of offensive and dangerous trades;

10 construction and maintenance of petty irrigation works;

11 control of cattle pounds;

12 registration of births and deaths.

Apart from the functions mentioned above, the Panchayats may also make reasonable provisions for carrying out the requirements of the Panchayat area in respect of the following aspects:—

(i) Agriculture:—

1 the improvement of agriculture and establishment of model agricultural farms;

2 the establishment of granaries;

3 bringing under cultivation waste and fallow lands belonging to or vested in the Panchayats;

4 ensuring conservation of manurial resources, cultivation of green manure, preparing compost and sale of manure;

5 the establishment and maintenance of nurseries of improved seeds and seedlings;

6 provision of implements, stores, insecticides etc;

7 the promotion of co-operative farming;

8 the conducting of crop experiments, launching of crop protection schemes and crop competitions;

9 the construction, repair and maintenance of irrigation works, field channels and distribution of water;

10 encouraging farmers' clubs and other associations of agriculturists;

11 assistance in the implementation of land reform scheme;

12 execution of soil conservation schemes.

(ii) Animal husbandry:—

1 improvement of cattle and cattle breeding and the general care of livestock;

2 the promotion of dairy farming;

3 the maintenance of stud-bulls and stud-goats;

4 the promotion of poultry farming and bee-keeping;

5 conducting cattle and poultry shows;

(iii) Education and Culture:—

1 the spread, supervision and improvement of education;

2 the establishment and maintenance of children's parks, clubs and other places of recreation for the welfare of women and youth;

3 the promotion of art and culture including the establishment and maintenance of theatres;

4 the establishment, maintenance and encouragement of reading rooms and libraries;

5 noon-feeding of school children;

6 the establishment and maintenance of community listening sets, recreation centres and centres for physical culture, sports and games;

7 the erection of memorials for celebrities and historical personages;

(iv) Social Welfare:—

1 maternity and child welfare including the establishment and maintenance of orphanages and foundlings homes;

2 the relief of the old and the infirm and the physically handicapped and the sick;

3 assistance to the residents when any natural calamity occurs;

4 family planning;

5 organising voluntary labour for community works for the development of the village;

6 destitute homes and beggar homes;

(v) Public Health and Sanitation:—

1 preservation and improvement of public health;

2 supply of water;

3 sanitation, conservancy and the prevention and abatement of nuisance and disposal of carcasses of animals;

4 the disposal of unclaimed corpse;

5 the disposal of unclaimed cattle;

6 the taking of measures to prevent the outbreak, spread and recurrence of any infectious disease and vaccination;

7 the reclaiming of unhealthy localities;

8 providing medical relief;

9 the inoculation of animals and birds;

10 the disposal of stray and ownerless dogs;

11 the establishment and maintenance of dispensaries and the payment of subsidies to rural medical practitioners;

12 control of fairs and festivals;

13 maintenance of the purity of fish, meat and other food stuffs;

(vi) Public Works:—

1 the planting of trees along roads, in market places and other public places and their maintenance and preservation;

2 the construction, maintenance and control of bathing and washing ghats;

3 the construction and maintenance of buildings for warehouses, stores, shops, purchasing centres, etc.

4 construction and maintenance of houses under colonisation and settlement schemes;

5 construction and maintenance of choultries and rest houses;

6 construction and maintenance of houses for Panchayat staff and other village functionaries;

7 the establishment and maintenance of works for the provision of employment, particularly in times of scarcity;

8 the extension of village sites and the regulation of buildings and housing schemes;

9 the opening of and maintenance of public markets, slaughter-houses, bus-stands, cart stands, landing places, halting places and ferries and also the licensing of such places opened and maintained by private individuals and institutions; and

(vii) General:—

1 preparation of plans for the development of the Panchayat area;

2 the promotion, improvement and encouragement of cottage and village industries;

3 promotion of pisciculture;

4 preservation of objects of archaeological interest;

5 the promotion of social and moral welfare of the inhabitants of the Panchayat area including the promotion of prohibition, promotion of social equality, amelioration of the condition of the backward classes, the eradication of corruption and the discouragement of gambling, litigation and other anti-social activities;

6 the encouragement of any of the services and activities mentioned above by grant-in-aid or otherwise;

7 any other measure of work which is likely to promote the health, safety, education, comfort, convenience or social or economic or cultural well-being of the inhabitants of the Panchayat area.

Financial Resources

The Panchayats have different sources of income. Building tax, profession tax, vehicle tax, cess on land, basic tax grant, duty on transfer of property, licence fees for dangerous and offensive trades, markets and slaughter houses service tax, Government grants etc. are the most important. According to the provisions of the Kerala Panchayats Act (1960) the building tax has to be levied on all buildings in the Panchayat area at such percentage of the net annual rental value of the building as may be fixed by the Panchayat subject to a maximum of 10% and a minimum of 4%. This item of tax fetches the lions share of the revenue to the Panchayats in this District. The profession tax has to be levied from every person who exercises a profession within the Panchayat subject to the maximum rates prescribed under the rules. The vehicle tax may be levied on all vehicles except motor vehicles kept or used in the Panchayat area. A cess on land is levied at the rate of 2 nP. per annum for every 5 cents of land in the Panchayat area except on those lands exempted by the Government. Service tax for sanitation, water supply, scavenging, street lighting and drainage may also be levied with the sanction of the Director of Panchayats. Besides, show tax is also levied from the Panchayat area at the rates prescribed by the Government. The Panchayat may, with the sanction of the Director, levy a surcharge on building tax for a period, which should not exceed 1/4 of the tax levied.

It has been specified in the Act that the Government grants provided to the Panchayat shall be equal to 3/4 of the amount of the basic tax collected by the Government from

the Panchayat area in the preceding year. It also has to pay to the Panchayats a grant the aggregate of which shall be as near as may be equal to the balance of the basic tax collected by the Government in the preceding year from all the lands in the State in such proportion as may be fixed by the Government in having regard to the area, population, available resources and needs of development of the Panchayats and the cost of the Panchayat administration. Moreover, special grants are also given to the Panchayats for specific purposes. The grants given by the Government also include building grants and establishment grants.

Organisation of Panchayats

The Panchayats are graded into four, viz., Special Grade, Grade I, Grade II and Grade III.[1] The details of the classification are given below.

Special Grade	Panchayats having an annual income of more than Rupees one lakh and which are specially notified as Special Grade by the Government
Grade I	Panchayats having an income between Rs. 50,000 and Rupees one lakh
Grade II	Panchayats having an income between Rs. 20,000 and Rs. 50,000
Grade III	Panchayats having an income of less than Rs. 20,000

There is no Special Grade Panchayat in the Ernakulam District. Thodupuzha is the only Grade I Panchayat. Of the rest 16 are Grade II and 84 are Grade III.

There is a staff pattern for each Panchayat which consists of a Panchayat Assistant and a Bill Collector-cum-Peon for the smaller ones and a Panchayat Assistant, a Bill Collector and a Peon for the bigger ones. As the head of the office staff there is an Executive Officer for each of the Panchayats. He is appointed by the Government. The Kerala Panchayats Act (1960) has deprived the President of all executive authority and vested it in the Eexecutive Officer. Like the Commissioner of the Municipality, the Executive Officer has enough powers to control the office staff and give punishments when required. It may be mentioned

1 Vide G. O. Ms. 183/63/D. D. dated 2-3-1962

here that there are four separate Grades of Executive Officers for the four Grades of Panchayats. They are as follows.

1	Special Grade Panchayat Executive Officers on		Rs. 150-250
2	Grade I	"	Rs. 100-200
3	Grade II	"	Rs. 80-180
4	Grade III	"	Rs. 40-120

The immediate superior of the Executive Officers is the Panchayat Inspector. He supervises, controls and aids the Panchayats in their work. There are seven or more Panchayats within the jurisdiction of an Inspector. Where there is a Block the jurisdiction of the Panchayat Inspector is co-extensive with the Block and he functions as an Extension Officer attached to the Block. Where there is no Block, the Director of Panchayats fixes the number of Panchayats to be under the control of each Inspector.

The District Panchayat Officer who is the immediate superior of the Panchayat Inspectors is at the apex of the Panchayat administration in the District. He supervises the working of the Panchayats. The District Panchayat Officer, Ernakulam, is under the immediate control of the Deputy Director of Panchayats, Ernakulam, who is a regional officer. Some of the powers of the Director of Panchayats have been delegated to the District Panchayat Officers and the Deputy Director of Panchayats in order to ensure the efficient working of the Panchayats.

Activities and Achievements of Panchayats

Public works activities claim the major share of the expenditure out of the Panchayat funds in the District. Under Section 62 of the Kerala Panchayats Act (1960) all public roads other than National Highways and State Highways are vested in the Panchayats. The Panchayats in Ernakulam District maintain roads with a total distance of 782 miles and 1 furlong. A peculiar feature of the Panchayats in the District is that several of them conduct ferry services. There are 83 ferries under 30 Panchayats in the District. The lighting of public roads and public places is also done by Panchayats. 6,614 electric lights and 569 kerosene lights are installed at various parts in 89 out of 101 Panchayats in the District. 324 electric lights are installed in Thrippunithura Panchayat alone while in Varapuzha and Thodupuzha Panchayats there are 217 and 285 electric lights respectively. 42 Panchayats have their own office buildings. There are altogether 247 community listening

sets working in all the Panchayats in the District. In Thrippunithura and Njarakkal Panchayats alone there are seven sets each while several other Panchayats maintain a minimum of four sets. Deserving reading rooms and libraries recognised by the Kerala Grandhasala Sanghom are given grants-in-aid from the Panchayat funds. In Kalloorkkad a library and reading room is maintained by the Panchayat itself. In 1961-62 a sum of Rs. 17,893.35 was disbursed as grant to libraries and reading rooms by the Panchayats in Ernakulam District. Besides libraries and reading rooms, institutions such as sports clubs, recreation centres, nursery schools, mahila mandals, etc., are also given grants-in-aid by the Panchayats. Primary education has also been taken up with enthusiasm by some of the Panchayats. There are 8 Primary Schools under the management of the Panchayats in the District. While the Kalloorkkad Panchayat runs two schools, the Kumaramangalam, Velliamattam, Muttam, Maneed, Kizhakkambalam and Thrikkakkara Panchayats run one each. Panchayats also provide public health amenities to the rural public. There are 29 midwives rendering service in 18 Panchayats in the District. Some of the Panchayats also give grants-in-aid to Ayurveda and *Vishavaidyasalas*. In Panchayat areas, where scarcity of pure drinking water is an acute problem, the Panchayats supply water in lorries in times of urgent need. The Vadavukode, Puthencruz, Kumbalam and Amballur Panchayats have made arrangements for the regular supply of good drinking water. The executive authorities in the Panchayats also take steps to check food adulteration. Vaccination is attended to regularly in almost all the Panchayats in the District.

The following table gives a broad idea of the activities and achievements of the Panchayats in the Ernakulam District in 1962-63.

1	No. of Panchayats which have constructed office buildings	42
2	No. of Panchayats supplying Community Listening Sets	101
3	No. of Panchayats running markets	54
	„ cattle pounds	79
	„ ferries	40
4	No. of Panchayats providing street lights	91
5	No. of Panchayats that have appointed midwives	18
6	No. of Panchayats rendering water supply	6
7	No. of Panchayats paying grants to Ayurveda and Vishavaidyasalas	3
	„ to Libraries	77
	„ to Physical Education activities	1
8	No. of Panchayats conducting public schools	7

The total expenditure incurred by the Panchayats in the Ernakulam District on Public Works, Public Health and Medical Services and Educational and Cultural activities for each of the years from 1957 to 1962 is given below.

Year	Public Works	Public Health and Medical Services	Educational and Cultural Activities
	Rs. nP.	Rs. nP.	Rs. nP.
1957-58	5,26,946.00	67,341.13	15,335.70
1958-59	4,71,601.72	1,11,926.30	20,831.37
1959-60	3,48,665.09	1,16,735.29	20,193.97
1960-61	3,80,262.18	1,35,727.97	23,042.08
1961-62	3,80,334.03	1,26,787.10	34,120.68

ORGANISATION AND WORKING OF TWO TYPICAL PANCHAYATS

Kalloorkkad Panchayat

Kalloorkkad is a third Grade Panchayat in the District. Established in 1953, it comprises an area of 10 sq. miles and serves a population of 11,561. The Panchayat area is divided into seven wards, each electing one member to the seven-member Panchayat. There is no reservation of seat for Scheduled Castes and Scheduled Tribes, as they constitute only less than 5% of the total number of voters. The members of the Panchayat meet at least once in a month.

During the one decade since its establishment the Kalloorkkad Panchayat has registered all-round progress. Its office is located in a building of its own constructed on a 40 acre plot donated by the public for Panchayat activities. The Panchayat has undertaken and completed several works of public utility such as laying of roads and construction of buildings. Till March 31, 1963 it spent a sum of Rs. 2,06,017 under the L.D. Scheme, Rs. 59,095 from the Block funds and Rs. 14,821 from the Panchayat fund in connection with the execution of such works. The Panchayat area is served by a net-work of roads. It has three miles of tarred roads, eleven miles of water bound Macadam roads and five miles of village roads maintained

by the Public Works Department. In addition, the Panchayat itself maintains 17 miles of village roads. Moreover, the Panchayat spent a sum of Rs. 46,845 on irrigation works and a sum of Rs. 6,000 under rural water supply scheme during the same period. Owing to the efforts of the Panchayat the electric line has been extended to Kalloorkkad, Nagapuzha, Velur etc. and street lights have been installed along the main roads. There are seventy street lights in the whole Panchayat area.

The Panchayat has been active in the field of education, public health and other social services. Thanks to its initiative a High School and four Primary Schools are now functioning in the area. Of these two Primary Schools are run by the Panchayat itself. They are the Vallaramkallu Lower Primary School and the Maruthur Lower Primary School. The Panchayat is also running a reading room and library at Velur. To this Panchayat goes the credit for securing a grant of Rs. 5,000 from the Central Government for the construction of a new building foi the Kalloorkkad Cosmopolitan Library. There are two midwifery centres, an Ayurvedic Dispensary, and a Government Dispensary in the Panchayat area. In addition, there is a Public Health Assistant attached to the Panchayat Office. The Panchayat maintains a public latrine, two bathing ghats, two public markets and a cattle pound. It also runs a Maternity and Child Welfare Centre under a qualified midwife. A Mahila Samajam and a Recreation Centre are also functioning here. A Community listening set has been set up at the Recreation Centre. Moreover, there is a Service Co-operative Society in the Panchayat area to help farmers by granting them loans and supplying manures. The Panchayat has ambitious proposals for constructing a Rest House, a Community Hall and a Stadium.

A special feature of this Panchayat is that the Market by-laws, P.V.R. Act, Entertainment Tax, Cattle Trespass Act, Section 87 of the Kerala Panchayat Act which pertains to levy of fees by licensees of private markets, Professional tax on agricultural income, etc. have been fully implemented here. This is not the case with most of the other Panchayats in the District. A statement of the income and a brief abstract of the receipts and expenditure of the Kalloorkkad Panchayat for 1962-63 are given below.

Income of Kalloorkkad Panchayat, 1962-63

	Rs.
Building tax	1,691.22
Profession tax	1,486.00
Vehicle tax	..
Land cess	2,005.31
Show tax	..
Service taxes	..
Licence fee	1,389.25
Duty on transfer of property	..
Income from public market	708.75
Basic tax grant	..
Income from private market	..
Surcharge on building tax	..
Income from all other miscellaneous items	368 73

Receipts and Expenditure of Kalloorkkad Panchayat, 1962-63

	Rs.
Grand total	20,005.06
(i) Opening balance	5,107.81
(ii) Receipts, including grants	14,897.25
Expenditure	16,171.65
Balance	3,833.41

The authorities of the N.E.S. Block, Thodupuzha, have rendered all possible financial help for the various development activities carried on by this Panchayat. In fact, the Kalloorkkad Panchayat stands out as a symbol of the progress than can be achieved by close co-operation between the Government machinery on the one hand and the Panchayat and the public on the other.

Kothamangalam Panchayat

Kothamangalam is a Grade II Panchayat. Established as a Village Union in 1118 K.E. (1942-43) and a Panchayat in August 1953, it comprises an area of 14.5 sq. miles and serves a population of 22,541. The

Panchayat area is divided into nine Wards, each electing one member except Ward No. I where a seat is reserved for Scheduled Castes. The sanctioned strength of the Panchayat is thus ten. The members of the Panchayat meet at least once in a month.

During the one decade since its establishment the Kothamangalam Panchayat has achieved a great deal. In the beginning the Panchayat office was located in a rented building, but it is now housed in a convenient and spacious building constructed by the Panchayat in the heart of the Kothamangalam town at a cost of Rs. 13,000. The Village Office is also accommodated in the same building. The Panchayat office is electrified and equipped with necessary furniture, radio and telephone. This is not the case with most of the other Panchayats including even Grade I Panchayats in the District.

The Panchayat has undertaken and completed several works of public utility such as construction and maintenance of roads, buildings etc. Till March 31, 1963 it spent an amount of Rs. 93,100 under L.D. Scheme, Rs. 26,350 from the Block funds and Rs. 1,53,053·73 from the Panchayat fund, in connection with the execution of such works. The Panchayat area is served by a net-work of roads. It has 14 miles of Village roads. Moreover, the Panchayat is conducting three ferry services, the remuneration to ferry men being paid from the Panchayat fund at the rate of Rs. 30 per mensem for each. The Panchayat owns a convenient Bus Stand constructed at a cost of Rs. 25,000. In addition, two waiting sheds have been constructed at Angadi and Kuthukuzhi for the use of the public.

Twenty-four irrigation tanks and 8 dams are maintained by the Panchayat for irrigation purposes. The total cost of construction of the works came to Rs. 60,000. Four bathing ghats are also maintained by the Panchayat for the use of the public. Eight wells have been constructed in the Panchayat area for drinking water supply. 182 street lights have been provided by the Panchayat. The annual expenditure of the Panchayat towards current charges for street lights comes to Rs. 3,778.05.

The Kothamangalam Panchayat has been active in the field of education and social services as well. There are 9

Primary Schools and 4 High Schools in the Panchayat area. In addition, an Arts College and an Engineering College are located here. The Panchayat is giving aid to schools by way of grant for purchase of utensils etc. for the noon-feeding of school children. The Panchayat is running a Public Library which is one of the best in Moovattupuzha Taluk, having more than 4,000 books and 400 active members. In addition, there are 5 libraries for which grants are paid from the Panchayat. Annual expenditure on this account from the Panchayat comes to Rs. 1,000. Community listening sets have also been supplied to the libraries. Radio rural forums are also functioning in the libraries.

There are three Mahila Samajams functioning in the Panchayat area. A Project Implementing Committee is working here with aid from the State Government and the Central Government. Seven social workers are working under the Committee and they are conducting "Balavadi" classes at 3 centres in the Panchayat area. Besides, a Community Recreation Hall has been constructed by the Panchayat at Puthuppadi at a cost of Rs. 3,500 with aid from the N.E.S. Block. Several entertainments conducted by the educational institutions for educational and cultural purposes are exempted by the Panchayat from payment of Entertainment Tax.

There is a Government Hospital in the headquarters of the Panchayat. In the beginning it was housed in a small building with insufficient space. Thanks to the interest taken by the Panchayat a building for the Hospital with provision for 100 beds was constructed in 1957 under the Local Development Scheme at a cost of Rs. 50,000. There is a Midwifery Centre under the Panchayat. A M.C.H. Centre is also functioning at Puthuppadi under the Panchayat. Moreover, a Health Assistant is working in the area. Markets and streets are regularly swept by the sweepers working under the Health Assistant. In addition, the Panchayat maintains a public latrine having 3 compartments and also three public urinals. A full-time scavenger is employed by the Panchayat for keeping the latrine and urinals clean. Further, Kothamangalam town is declared by Government as a Festival Area for the period from 25th September to 4th October during

the annual festival of the Kothamangalam Mar Thoma Cheriya Palli. Special sanitary arrangements are being made by the Panchayat in connection with the festival incurring an expenditure of about Rs. 400 from the Panchayat fund.

There is a Service Co-operative Society in the headquarters of the Panchayat. Two other co-operative societies are also rendering aid to the agriculturists by giving loans and supplying manures. A branch of the State Trading Corporation and an Agricultural Marketing Co-operative Society are also working in the Panchayat area for the benefit of the public. Besides, compost manure is being produced by the Panchayat utilising the loan of Rs. 2,000 sanctioned for the purpose from the N.E.S. Block. The several irrigation tanks and dams constructed and maintained by the Panchayat help the agricultural production in the area.

A Veterinary Dispensary has been constructed by the N.E.S. Block at a cost of Rs. 15,850 with Panchayat contribution. The area is included under the Cattle Development Scheme and a special wing of the Animal Husbandry Department is working here to implement the scheme.

The Panchayat is conducting a cattle pound which is of great use to the public. Licensing of dangerous and offensive trades is done by the Panchayat and the provisions of the Prevention of Food Adulteration Act are also being enforced. The rules pertaining to the licensing of dogs and pigs are being brought into force. Steps have also been taken for opening a public burial ground in the Panchayat area. The Panchayat has ambitious proposals for the improvement of the public market as well as for providing protected water supply and constructing a Rest House. A well planned scheme costing Rs. 50,000 is being implemented for the improvement of the market. The Panchayat has invested an amount of Rs. 2,000 in the Central Government 4¼% loan of 1973 and another sum of Rs. 2,250 in the National Defence Certificate.

A statement of the income and a brief abstract of the receipts and charges of the Kothamangalam Panchayat for 1962-63 are given below.

Income of Kothamangalam Panchayat, 1962-63

	Rs.
Building tax	13,368.09
Profession tax	5,379.55
Vehicle tax	..
Land cess	2,227.91
Show tax	..
Service taxes	..
Licence fee	1,667.23
Duty on transfer of property	..
Income from public market	7,362.50
Basic tax grant	..
Income from private market	..
Surcharge on building tax	..
Income from all other miscellaneous items	16,282.00

Receipts and Expenditure of Kothamangalam Panchayat, 1962-63

		Rs.
	Grand total	**90,985.26**
(i)	Opening balance	44,703.98
(ii)	Receipts including grants	46,281.28
	Expenditure	57,324.14
	Balance	33,661.12

COCHIN PORT TRUST

The constitution and working of the Cochin Port Trust may also be considered in this Chapter. The Cochin Port became a Trust with effect from February 29, 1964 when the Government of India constituted the first Board of Trustees for the Port under sub-section (1) of Section 4 of the Major Port Trusts Act of 1963. A regular Board of Trustees, as contemplated in sub-section (1) of Section 3 of the Act, was constituted with effect from 1st April 1964. The Board is a corporate body having perpetual succession and a common seal with power to acquire, hold or dispose of property and by the name by which it is constituted, can sue or be sued. In the Act provision has been made for a Board of Trustees

consisting of 22 members, besides the Chairman and the Deputy Chairman, of whom not more than 10 persons will be appointed by the Central Government representing (1) labour employed in the port, (2) the Mercantile Marine Department (3) the Customs Department, (4) the Government of the State in which the port is situated, (5) the Defence Services, (6) the Indian Railways and (7) such other interests as in the opinion of the Government ought to be represented on the Board and 12 persons elected by such State or local bodies representing commercial, shipping or local interests as the Central Government may specify from time to time by notification in the Gazette.

The existing Board of Trustees of the Cochin Port Trust has 14 members including the Chairman as detailed below:—

1 Chairman

2 Collector of Customs and Central Excise, Cochin (representing the Customs Department)

3 Chief Operating Superintendent, Southern Railway (representing the Indian Railway)

4 Commodore-in-Charge, Cochin (representing the Defence Services)

5 Secretary, Public Works Department, Government of Kerala (representing the State Government)

6 Municipal Commissioner, Ernakulam

7 & 8 Two Representatives of labour

9 One representative of the Indian Chamber of Commerce Cochin

10 One representative of the Cochin Chamber of Commerce

11 One representative of the Ernakulam Chamber of Commerce

12 One representative of the All India Sailing Vessels Industries Association

13 One representative of the Indian National Steamship Owners' Association

14 Chairman, Fort Cochin Municipality (representing Municipal interests)

The Board of Trustees meets at least once in every month. It can constitute from amongst the Trustees one or more committees, each consisting of such numbers as the Board may consider necessary for the purpose of discharging such of its functions as may be delegated to such committee or committees by the Board. The Board is

competent to deal with all matters relating to the administration of the Cochin Port except those in respect of which sanction of the Central Government is required as specified in the Act or in any relevant notifications under the Act. Generally these relate to creation of certain senior posts, acquisition and sale of immovable property above a certain limit, fixation of rates and charges, floating loans, annual budget etc.

Receipts of the Municipalities

	Item	Ernakulam	Mattancherri
	1	2	3
		Rs.	Rs.
	Grand Total	**22,65,313.62**	**17,34,309.78**
1	Grants from Government	1,62,180.00	2,23,291.49
2	Grants from other sources	..	8,997.47
3	Property tax on Buildings and Lands	7,15,283.00	5,93,993.47
4	Tax on Vehicles & Animals	14,087.00	5,050.75
5	Profession tax	2,63,156.00	89,345.76
6	Tax on Advertisements	10,919.00	1,320.50
7	Tax on Entertainments	1,59,420.00	1,00,061.21
8	Show Tax	7,309.00	5,028.60
9	Cattle pound	540.00	0.87
10	Conservancy receipt	11,592.00	505.51
11	Income from markets	1,38,459.00	8,732.20
12	Licence fees	60,209.00	60,381.55
13	Cart stand fees (Ferry)	11,790.00	21,483.46
14	Bus stand fees	..	6,705.20
15	D. N. & D. W. Fees	1,337.00	2,279.06
16	Fines and compounding fees	7,398.00	3,693.52
17	Other fees	29,394.00	451.31
18	Library receipts	..	..
19	Sale tax (Surcharge on transfer of property)	..	376.94
20	Sale of old materials	5,280.00	18,206.98
21	Interest	1,353.00	5,292.13
22	Rent on land & buildings	41,348.00	10,947.15
23	Miscellaneous items *	..	2,37,836.51
24	Other deposits	63,046.00	30,866.63
25	P. W. Security	12,595.00	5,090.00
26	Loans	..	1,13,500.00
27	Advance recoverable	56,991.00	1,69,710.11
28	Surcharge on profession tax	11,247.00	2,361.40
29	Slaughter house	18,157.00	..
30	Sathram and Town Hall	7,850.00	..
31	Licence fees under K. P. F. A. Act	4,102.00	..
32	Landing and Mooring fees	37,986.00	..
33	Refunds	1,011.00	..
34	Metre hire and cost of excess consumption of water	2,55,941.00	..
35	Public Baths	9,458.00	..
36	Deposits by receipts	36,338.00	..
37	Cash security deposits by Municipal servants	5,800.00	..
38	Provident Fund	58,196.00	..
39	Contribution works	33,541.62	..

* In the case of Municipalities other than Ernakulam the income under items 29 to 39 is entered under miscellaneous items.

in Ernakulam District (1962-63)

Fort Cochin	Alwaye	Parur	Perumbavur	Moovattupuzha
4	5	6	7	8
Rs.	Rs.	Rs.	Rs.	Rs.
6,82,625	**3,46,178.81**	**2,02,022.38**	**2,05,470.47**	**1,56,159.00**
79,232	25,809.92	24,802.46	20,807.25	18,002.00
..	..	..	..	..
2,26,372	95,050.23	75,504.70	64,587.09	42,813.00
3,902	1,600.00	2,662.75	1,486.50	1,609.00
36,738	23,084.34	16,233.81	20,355.90	15,765.00
1,434	4,500.76	1,525.70	708.38	1,651.00
29,786	38,822.81	10,276.29	12,064.63	15,705.00
1,481	3,701.00	1,639.00	3,160.00	1,674.00
102	286.00	119.75	34.00	295.00
1,920	1,345.50	1,492.00	42.37	23.00
1,372	27,005.00	21,040.00	27,734.37	15,973.00
12,548	18,681.75	15,366.16	9,520.87	7,409.00
1,05,897 }			779.00	
	3,945.00	1,589.25		
2,465 }			4,158.00	
366	233.14	439.76	316.20	475.00
553	1,446.00	379.40	..	499.00
1,851	153.40 }		823.67	2,466.00
		616.31		
242	5,290.57 }		1,417.74	..
9,268	..	46.92	11.26	..
478	4,120.16	1,323.75	1,102.36	..
1,610	34.82	375.00	70.90	299.00
10,691	15,610.74	4,533.55	5.00	472.00
31,800	1,751.45	2,118.69	529.19	888.00
76,247 }		216.00	3,972.65	3,995.00
	8,278.71			
.. }		14,440.50	2,901.00	6,755.00
..	63,480.00	5,220.00	26,670.00	11,739.00
43,000	382.81	3,305.22	1,527.73	6,852.00
4,770	864.70	665.41	683.91	580.00
..	..	..	..	..
..	..	..	..	..
..	..	..	..	..
..	..	..	..	..
..	..	..	..	..
..	..	..	..	..
..	..	..	..	..
..	..	..	..	..
..	—	..	—	—
..	..	..	..	..
..	..	..	..	..

Abstract of the Accounts of the Municipalities

	Item	Ernakulam	Mattancherri
	1	2	3
		Rs.	Rs.
	RECEIPTS		
	Grand total including opening balance	**27,53,998.62**	**18,89,721.70**
1	Opening balance	5,12,938.53	1,55,211.92
2	TOTAL RECEIPTS	22,41,060.09	16,64,509.78
i	Grants & contributions	1,62,180.06	2,23,291.49
ii	Rates and Taxes	10,11,861.12	7,07,688.29
iii	Realisation under Special Acts	1,63,622.78	1,00,062.08
iv	Revenue derived from Municipal property	3,47,608.41	1,45,130.91
v	Miscellaneous	2,78,032.19	79,669.39
vi	Deposits Accounts	2,17,755.53	4,78,667.62
	EXPENDITURE		
	Grand total including closing balance	**27,53,998.62**	**18,89,721.70**
1	Closing balance	6,20,641.55	3,76,861.86
2	TOTAL EXPENDITURE	21,33,357.07	15,12,859.84
i	General supervision & collection of revenue	2,16,840.00	1,95,875.01
ii	Public works	4,20,990.49	5,66,494.91
iii	Education	..	..
iv	Medical Service & Sanitation	3,94,979.43	2,82,425.05
v	Lighting & other Municipal purposes	6,03,492.97	37,151.81
vi	Interest on sinking fund	..	..
vii	Miscellaneous	1,81,633.78	1,38,796.17
viii	Debt loans	48,359.15	38,903.01
ix	Deposits	2,02,291.25	2,03,649.48
x	Advance recoverable	64,770.00	1,09,442.40

in Ernakulam District (1962-63).

Fort Cochin	Alwaye	Parur	Perumbavur	Moovattupuzha
4	5	6	7	8
Rs.	Rs.	Rs.	Rs.	Rs.
8,75,151	**3,72,987.55**	**2,88,954.04**	**2,52,384.94**	**2,05,323.00**
1,88,826	25,457.59	83,179.67	42,557.32	49,454.00
6,86,325	3,47,529.96	2,05,774.37*	2,09,827.62	1,55,869.00
79,232	25,809.92	24,802.46	20,807.25	18,002.00
2,09,181	1,67,559.14	1,07,842.25	1,02,760.51	77,840.00
2,291	286.00	119.75	34.00	1,969.00
1,22,345	72,985.02	47,355.18	49,189.31	27,249.00
49,259	7,883.66	2,118.69	2,037.50	888.00
1,24,017	73,006.22	23,847.13	34,999.05	29,921.00
8,75,151	**3,72,987.55**	**2,88,954.04**	**2,52,384.94**	**2,05,323.00**
1,97,028	78,459.00	1,06,585.30	43,371.83	79,145.00
6,78,123	2,94,528.55	1,82,368.74	2,09,013.11	1,26,178.00
70,743	33,617.93	20,982.51	30,464.18	29,188.00
27,005	40,529.78	43,840.46	66,400.15	31,151.00
4,017	6,867.16	3,126.70	4,948.54	349.00
1,64,699	97,998.36	45,946.72	36,711.14	17,848.00
1,06,685	•15,876.86	15,713.07	26,836.57	16,289.00
40,650	..	..	4,807.97	..
1,03,128	25,463.85	20,485.06	23,682.24	12,993.00
99,220	24,909.35	17,788.05	11,612.11	5,789.00
1,21,976	..	14,486.17	35,502.21	10,651.00
..	1,661.54	..	—	1,920.00

* Deducting on account of refund of revenue a sum of Rs. 311.09.

CHAPTER XV

EDUCATION AND CULTURE

Historical Background

The history of education in Ernakulam District goes back to very early days. In the ancient period the State did not maintain or aid any schools, but left the people free to make their own arrangements for the education of their children. Each *Kara* had its own *Patasala* or elementary school, presided over by the *Asan* or village school master. These schools were of the mixed type in which both boys and girls were taught reading, writing and arithmetic and a set of selected hymns, besides *Kavyas* and a smattering of astronomy and astrology. They were held either in the houses of rich men or in sheds put up by the people of the *Kara*.

There were also several *Mutts* or *Sabhas* where Nambuthiri youths received free board and education. Kumbalam in this District was the seat of the famous *Udayatungeswarat Panditha Sabha*. The Nambuthiri children who were taught the rudiments of knowledge in their own houses till the *Upanayana* ceremony came to the *Mutts* where they were taught the *Vedas*, the *Sastras*, Sanskrit literature and sciences. The teachers were learned Nambuthiri scholars who generally resided in the *Mutts* and received no remuneration for their services except free board and lodging. As members of other castes were not generally admitted to these institutions, higher education in Sanskrit was practically monopolised by the Brahmins.

During the 16th century the District had some important centres of Christian learning. Under the Portuguese Cochin was the seat of a Jesuit College. It had three storeys and about 20 to 30 apartments. Pallippuram in Vaipin Island had also a Jesuit College during the Portuguese period. In Chennamangalam was situated the famous Vaipicotta Seminary which was built by the Jesuit fathers in the 16th century for the instructions of Syrian youths in

the Syriac tongue. In the 17th century Varapuzha became the seat of a Seminary founded by the Carmelites.

Mention may also be made in this connection of the rulers of Cochin and their contributions to learning. Thrippunithura developed into a great rendezvous of scholars and learned men under their patronage. Many of the rulers, besides themselves being scholars and poets, were liberal patrons of learning and encouraged scholarship and talents in an uncommon measure. They also regularly made large contributions to the upkeep of *Mutts* and of *Patasalas*.

Beginnings of State activity in the field of Education

State activity in the field of education began in the District from the time of Col. Munro. At his instance a Proclamation was issued in 1818 by the ruler of Cochin establishing in the erstwhile Cochin State 33 Malayalam schools, one in each *Pravrithi* (Village), "with the avowed object of training up young men for state service as writers and accountants". However, the State schools were not an improvement on the old village schools and were abolished in 1832. In 1835 Dewan Venkata Subbayya established six Malayalam schools, one in each Taluk. Though they were soon eclipsed by English schools, they lingered on till 1894.

Beginnings of Western Education and pioneer work done in the District

The first attempt to introduce the study of the English language was made by a missionary, Rev. J. Dawson, who opened an English school at Mattancherri in 1818, in aid of which he received a grant from the Cochin Government. This school did not strike root and had to be closed down in three years. At the instance of the Resident, Mr. Cassamajor, another school was established in 1835 in the same place where the children of the Jews were taught English, Hebrew and Malayalam. Two years later an English school was opened at Thrippunithura for the education of the princes and others and one was opened at Ernakulam in 1845. These were purely elementary schools and continued as such till 1875, when the school at Ernakulam was placed under the charge of a European Headmaster, Mr. A.F. Sealy, with whose name is associated the progress of English education in erstwhile

Cochin State in its earlier stages. Since his appointment, the number of students attending the school increased rapidly and its standard of teaching was gradually raised.

District Schools were opened in all the Taluks in Cochin in 1877 and placed under the direction of Mr. Sealy. These schools steadily rose in number and most of them were subsequently raised to the status of High Schools. In 1889 a set of rules was framed for giving grants-in-aid to private schools in consequence of which many schools sprang up under the management of private agencies. Several of these schools since then rose to the lower and higher secondary standards, while the rest continued as primary schools. In 1890 a great impetus was given to the education of the masses by the organisation of a Department of Vernacular Instruction in Cochin. State schools were opened for boys and girls in most of the *pravrithis*. In 1892 the Vernacular and English Departments were amalgamated and placed under the control of a Superintendent of Education. In 1898 the High Schools, both Sirkar and private, were removed from the control of the Superintendent and placed directly under the Dewan.

Growth of Literacy

Ernakulam occupies an important place among the Districts of Kerala in point of literacy and educational standards. In the Census of 1911 more than 20 % of the males and 4% of the females in the old Cochin State were able to read and write. In the proportion of literates to the total population, Cochin stood ahead of all Districts of South India, barring the exceptional District of Madras, in 1911. There was a relatively larger proportion of literates among the Christians than among the followers of any other religion. The Hindus came next in point of literacy and they were followed by the Muslims. However, as far as Secondary and Collegiate education was concerned, the Hindus were more advanced than the Christians. Almost all the Brahmin, Kshatriya and Ambalavasi males were literate while literacy was extremely low among the Pulayas, Parayas and the Hill Tribes. During the period between 1911 and 1932, with the progress of education, the percentage of literacy increased to a considerable extent among all classes of people in this District. According to the Census of 1951, 45.43% of the total population was

literate and Ernakulam District held the 4th rank among the Districts of Kerala in point of literacy.

Literacy has made further headway during the decade 1951-61. According to the Census of 1961 there are 538,075 male literates and 402,151 female literates in this District and the general literacy rate is 50.55 per cent, i.e., an increase of 5.7 per cent over the 1951 rate. The percentage of male literates to the total male population is 57.78 and that of female literates to the total female population is 43.30. It may be pointed out that the percentage of literates in this District is much higher than the all-Kerala average of 46.9 per cent and more than double the literacy rate for India as a whole, i.e., 24 per cent. The percentages of male literacy and female literacy for Ernakulam are also above the Kerala average of 55 per cent and 38.9 percent respectively. In 1961 the District gets the second rank among the Districts of Kerala in respect of literacy. Considered Taluk-wise, Cochin Taluk stands foremost in regard to male and female literacy, the literacy percentages being 63.36 and 48.37 percentages respectively. The male literacy percentages for Cochin, Kanayannur, Moovattupuzha and Thodupuhza Taluks are higher than the State male literacy rate of 55 per cent. However, as far as the female literacy percentages are concerned, the percentages for Alwaye and Kunnathunad Taluks are lower than the State female literacy percentage of 38.9 per cent. The Taluk-wise figures of rural and urban literacy percentages as per the Census of 1961 are given in Table I.

TABLE I

Rural-Urban Literacy by Sex, 1961

District/Taluk	Percentage of literates to the total population		Percentage of male literates to the total male population		Percentage of female literates to the total female population	
	Rural	Urban	Rural	Urban	Rural	Urban
Ernakulam	**48.30**	**58.88**	**55.43**	**66.20**	**41.26**	**51.13**
Alwaye	40.62	65.19	47.40	71.83	33.96	57.48
Cochin	55.54	56.35	62.91	64.50	49.00	47.46
Kanayannur	50.32	62.40	58.98	69.07	41.72	55.47
Kunnathunad	45.40	51.16	53.73	59.73	37.23	41.97
Moovattupuzha	49.49	54.49	56.61	62.16	42.42	46.48
Parur	45.10	55.19	51.57	60.77	38.75	49.98
Thodupuzha	52.91	..	58.25	..	47.47	..

Educational Standards

Only 8 per cent of the total literates in 1961 have attained the educational qualification of Matriculation and above. At the same time the effective literacy percentage of the District comes to 59.53. This figure is arrived at by excluding the age group 0-4 from the total population. Table II furnishes the number of literates by educational levels and effective rates of literacy.

TABLE II

Literates by educational level and effective rates of literacy

Educational level	Persons	Percentage of total literates	Effective rate of literacy (per cent)
Total literates	**940,226**	**100.00**	**59.53**
Literates (without educational level)	632,905	67.32	40.07
Primary or Junior Basic	231,038	24.57	14.63
Matriculation and above	76,283	8.11	4.83

Spread of Education among Women

Education was widely diffused among women even in ancient days. Female education recorded appreciable progress in the District since the 19th century. The reduction in the rates of fees for girl students and the opening of schools in all important centres led to an all-round expansion of education among girls. Owing to the paucity of separate Girls' Schools girls used to be freely admitted into Boys' Schools. During the period between 1900 and 1932 there was phenomenal progress in the field of female education. High Schools for girls were established at Ernakulam and Chathiath. Many Lower Secondary Schools for girls were opened by Government as well as by private agencies. Provision was made for a number of special scholarships to encourage girls to take to various courses of studies. Several new subjects such as domestic economy, cookery etc., were incorporated in the curriculum. For the teaching of House-keeping and Nursing half a dozen lady graduates were trained in the General Hospital at Ernakulam and they were posted to Girls' High Schools. In all these schools special lectures were given by lady doctors under whose supervision the girls did practical work in Nursing in the local hospitals. In the Government Girls High School at Ernakulam arrangements were made for the teaching of *Kaikottikali*, *Kolattam* and Musical Drill. An art section was also opened in this school. So far as Girls' Schools were

concerned, facilities were made for the imparting of such instruction as would fit the girls for the duties that await them in life as housewives and mothers.

A College for Women came into existence when the St. Teresa's Convent at Ernakulam opened the Intermediate classes in 1925 and two years later B. A. classes were also opened providing instruction in History and Economics in the Pass course. Lady students, especially those desiring to take up Science subjects for their University Course, were admitted in the Maharaja's College, Ernakulam. Women students are now admitted to most of the Colleges, in the District. But the St. Teresa's College continues as the only First Grade Women's College for general education and it also offers a Degree Course in Home Science, specially intended for girls.

Spread of Education among Backward Classes and Tribes

Education of the Harijans, Scheduled Tribes and other Backward Classes has been given special attention by the Government in recent decades. During the period between 1900 and 1932 several important steps were taken by the Government for the promotion of education among the backward classes. Special scholarships and various financial concessions were introduced in order to attract children of the backward classes to schools. A number of Night Schools were opened by Government as well as by private agencies. *Quran* teaching and Arabic teachers were sanctioned for schools situated in Muslim centres. Children of backward communities were allowed half-fee scholarships in all Schools and Colleges, and these were taken advantage of by the backward communities.

With the dawn of Independence, Government have bestowed increasing attention on the promotion of education among the backward classes. All the students belonging to Scheduled Castes and Scheduled Tribes and poor students of Backward Communities are exempted from payment of fees at all levels of education. Lump-sum grants for the purchase of books and clothing are also paid to the students belonging to the Scheduled Castes, Scheduled Tribes and other eligible communities including Kudumbies and Christian converts. Libraries and Night Schools have been opened in areas where Scheduled Castes and Tribes live in large numbers. In remote hill

parts special Tribal Schools are also opened . There are 6 Welfare Schools and 9 Tribal Schools functioning in the District under the Department of Harijan Welfare for the benefit of the Scheduled Castes and Tribes. The Welfare Schools are located at Malakad (Kanayannur Taluk), Manikkamangalam (Alwaye Taluk), Veliyathunad (Parur Taluk), Keerampara (Moovattupuzha Taluk), Neriamangalam (Moovattupuzha Taluk) and Mullaringad (Thodupuzha Taluk). The Tribal Schools are located at Mullaringad, Poomala, Arakulam, Pathippalli, Uppukunnu, Valiakandam, Naliani, Maniyaramkudi and Kannampadi. All these schools are in Thodupuzha Taluk. The District has also a Craft Centre at Pathippalli and an Industrial Training Centre at Malayattur. In addition, there are Model Welfare Training Centres at Edappilli, Edavanakkad, Kottuvalli and Paipra and a Residential Basic Tribal School at Naliani. The Model Welfare Centres offer facilities for training in such trades as carpentry, weaving, rattan work etc. Twenty-eight students are admitted in each Centre and a monthly stipend of Rs. 25 is being paid to each of them. The period of training is two years. Further, there is a Cosmopolitan Hostel at Ernakulam and a Welfare Hostel at Kudayathur, Thodupuzha. Both the Hostels are meant primarily for the accommodation of Harijan students.

In 1962-63 there were altogether 48,024 students belonging to Scheduled Castes, Scheduled Tribes and other Backward Communities studying in the educational institutions in Ernakulam District and a sum of Rs. 6,56,568.87 was spent in giving various educational concessions to them. Table III given below furnishes the details regarding the number of such Harijan students and the amount spent for them.

TABLE III

Harijan Students in Educational Institutions, 1962-63

Institution	No. of Students	Amount spent Rs.
Total	**48,024**	**6,56,568.87**
Colleges for General Education	325	1,67,243.00
Engineering College	..	..
Polytechnic, Kalamasseri	2	901.00
Industrial, Technical & Vocational Institutions	74	16,880.37
Training Schools	48	9,563.67
High Schools	6,762	1,78,683.00
Primary Schools	40,813	2,83,297.83

GENERAL EDUCATION

Organisation of the Education Department

The Ernakulam Revenue District comprises of three Educational Districts with headquarters at Ernakulam, Alwaye and Moovattupuzha respectively. Each of these Districts is under a District Educational Officer (D.E.O.) who is directly in charge of all the Secondary Schools and Training Schools within his jurisdiction. The Taluks of Parur, Alwaye and Kunnathunad and the revenue villages of Edappilli North and South and Thrikkakara North and South form the Alwaye Educational District, the Cochin and Kanayannur Taluks except the four villages referred to above form the Ernakulam Educational District and the Taluks of Moovattupuzha and Thodupuzha the Moovattupuzha Educational District.[1] Each Educational District is divided into Sub-districts which are under Assistant Educational Officers(A.E.Os.). The Sub-districts are Alwaye, Parur, Thrippunithura, Mattancherri, Ernakulam, Thodupuzha, Moovattupuzha, Kothamangalam, Perumbavur and Ankamali. The Assistant Educational Officers are in charge of the Upper and Lower Primary Schools within their respective jurisdictions.

Nursery Schools

Pre-primary classes of the Nursery (Kindergarten) School pattern are conducted in certain localities of the District for the education of the children below 5 years of age. In 1962-63 there were altogether 13 Nursery Schools. The Taluk-wise details are given in Table IV.

TABLE IV
Nursery Schools (1962-63)

Taluk	No. of Schools		No. of Pupils		No. of teachers
	Government	Private	Boys	(Girls)	(Women)
Total	2	11	254	257	20
Cochin	..	2	31	25	3
Kanayannur	2	1	76	65	7
Parur	..	2	50	37	2
Kunnathunad	..	..	..	..	..
Alwaye	..	4	54	93	6
Moovattupuzha	..	1	25	21	1
Thodupuzha	..	1	18	16	1

1 This organisation has been effected as per G.O.P. No. 325 Ed. dated 19-6-1964.

Primary Schools

Primary education which is free extends to a period of seven years. The first seven standards are collectively known as the primary grade and are divided into two sections. They are (1) Lower Primary and Junior Basic containing any or all of the Standards from I to IV and (2) Upper Primary and Senior Basic containing any or all of the Standards from V to VII. All Primary Schools are mixed schools and have Malayalam as the medium of instruction.

In the school year 1962-63 there were 505 Lower Primary Schools and 204 Upper Primary Schools. Among the Lower Primary Schools 235 were run by Government and 270 by private agencies. Among the Upper Primary Schools 78 were Government Schools and 126 were Private Schools. Table V shows the number of Primary Schools in each Taluk along with the number of pupils and teachers in them in 1962-63.

TABLE V

Primary Schools (1962-63)

Taluk	No. of schools		No. of pupils		No. of teachers	
	Govt.	Private	Boys	Girls	Men	Women
Total						
Lower Primary	**235**	**270**	**1,05,463**	**98,075**	**2,049**	**2,650**
Upper Primary	**80**	**128**	**36,825**	**24,468**	**1,128**	**1,467**
Cochin						
Lower Primary	13	14	15,949	14,510	254	401
Upper Primary	7	14	2,350	2,479	125	204
Kanayannur						
Lower Primary	18	76	19,118	16,144	328	575
Upper Primary	9	30	10,538	8,037	191	398
Parur						
Lower Primary	43	43	17,295	16,245	293	448
Upper Primary	9	20	8,666	1,550	175	284
Kunnathunad						
Lower Primary	53	19	14,404	13,670	273	252
Upper Primary	14	14	4,428	3,103	192	158
Alwaye						
Lower Primary	28	32	11,887	10,009	241	258
Upper Primary	6	15	4,888	4,480	112	120
Moovattupuzha						
Lower Primary	54	41	12,883	13,910	384	374
Upper Primary	28	16	2,090	1,189	211	177
Thodupuzha						
Lower Primary	26	45	13,987	13,587	276	342
Upper Primary	7	19	3,865	3,630	122	126

Secondary Schools

Standards VIII, IX and X are collectively known as the secondary grade. The Secondary Schools are run by Government as well as by private agencies. The medium of instruction is generally Malayalam but there are a few select schools in such places as Ernakulam, Alwaye, Kaladi, Moovattupuzha, Perumbavur, Eloor and Cochin where provision has been made for English medium divisions. In 1962-63 there were 138 Secondary Schools in the Ernakulam District. Of these 23 were Government Schools and 115 Private Schools. Table VI shows the number of Secondary Schools in each Taluk along with the number of students and teachers in them in 1962-63.

TABLE VI

Secondary Schools (1962-63)

	No. of schools		No. of pupils		No. of teachers	
Taluk	Govt.	Private	Boys	Girls	Men	Women
Total	**23**	**115**	**51,559**	**44,542**	**2,030**	**1,261**
Cochin	4	19	7,967	6,540	212	134
Kanayannur	8	16	8,649	6,372	297	210
Parur	3	16	9,679	7,642	242	213
Kunnathunad	1	13	6,239	5,753	399	118
Alwaye	2	14	6,190	5,302	206	189
Moovattupuzha	3	23	7,854	7,353	432	240
Thodupuzha	2	14	4,981	5,580	242	157

Basic Schools

Basic education was introduced in the State by private enterprise in 1946. Since 1958-59 the policy of orienting primary schools towards the basic pattern is being progressively implemented by Government. The idea underlying this system of education is that the children should learn by doing instead of merely learning about things from books, so as to develop in them initiative, enterprise and resourcefulness. Productive work is made the basis of learning. The children are taught basic crafts like spinning and weaving, and are made to take pleasure in providing things of utilitarian value. Personal and environmental cleanliness is given an important place in the curriculum. The pupils are given a great deal of freedom in these schools, the teacher acting more like a friend than a disciplinarian. Basic Training Schools and other Post-Basic institutions have also been

started in order to meet the shortage of trained personnel for Basic Education. But there are only a few Basic Training Schools which have fairly satisfactory facilities to achieve the real aims of the system. The Basic Training School, Moovattupuzha, is one of them. As sufficient number of teachers are trained and sent out of the Training Schools, the Primary Schools in the neighbouring areas are converted into Junior Basic Schools with due stress on cotton craft and correlated teaching. In 1962-63 there were 38 Junior Basic Schools in the District. The details are given in Table VII.

TABLE VII

Junior Basic Schools (1962-63)

Taluk	No. of schools		No. of pupils		No. of teachers	
	Govt.	Private	Boys	Girls	Men	Women
Total	**37**	**1**	**6,998**	**6,230**	**143**	**172**
Cochin	..	..	..	..	..	..
Kanayannur	19	..	3,480	3,190	68	101
Parur	1	..	448	350	13	
Kunnathunad	9	..	1,060	998	30	18
Alwaye	5	1	1,132	806	19	25
Moovattupuzha	3	..	978	886	13	23

In Junior Basic Schools correlated teaching is not resorted to now and the craft materials are lying idle.

Training Schools

In 1962-63 there were 10 Basic Training Schools in the District. The training course extends over a period of two years. The emphasis is on community life and on correlated teaching with crafts convenient to each school. The candidates for the course are selected from among S.S.L.C. holders by a Board constituted by the Public Service Commission. The selection of untrained teachers employed in Primary Schools for admission to the Training Schools is made by the authorities of the Education Department. Normally 80 trainees are admitted every year. The particulars of the Training Schools are given in Table VIII.

TABLE VIII

Basic Training Schools ([illegible])

Taluk	No. of schools		No. of pupils		No. of teachers	
	Govt.	Private	Boys	Girls	Men	Women
Total	4	6	601	688	34	23
Cochin	..	1	80	80	4	2
Kanayannur	2	..	160	160	7	7
Parur	..	1	80	80	4	2
Kunnathunad	1	1	140	127	8	4
Alwaye	..	2	35	118	4	4
Moovattupuzha	1	1	106	123	7	4

COLLEGES FOR GENERAL EDUCATION

There are eight first grade colleges for general education in this District all of which are affiliated to the University of Kerala. They are (1) the Maharaja's College, Ernakulam, (2) the Union Christian College, Alwaye, (3) the St. Teresa's College, Ernakulam, (4) the Sacred Heart College, Thevara, (5) the St. Albert's College, Ernakulam, (6) the Nirmala College, Moovattupuzha, (7) the Sree Sankara College, Kaladi and (8) the Mar Athanasius College, Kothamangalam. Of these all except the St. Teresa's College, the Sacred Heart College and the St. Albert's College are co-educationa il nstitutions. The St. Teresa's College is a college for women while the St. Albert's College and Sacred Heart College admit only men students. The Maharaja's College, Ernakulam, is run by the Government while all the others are run by private agencies. Brief accounts of these institutions are given below:—

Maharaja's College, Ernakulam

This College has more than a hundred years of history behind it. Its nucleus is an Elementary English School started in 1845 during the Dewanship of E. Sankara Warrier. It gradually developed into a High School and sent out its first batch of Matriculates in 1868. The F.A. Class was opened in 1875 during the time of Dewan Sankunni Menon. In 1908 with the transformation of the F.A. into the Intermediate, considerable additions were made to the staff, accommodation and equipment. In 1910 the College Magazine was started in commemoration of the then Maharaja's sixtieth birthday. In 1925 the Ernakulam College



MAHARAJA'S COLLEGE, ERNAKULAM—AN INSIDE VIEW

celebrated its Golden Jubilee, when its name was changed into the Maharaja's College. In the same year it became a First Grade College affiliated to the Madras University in all the Groups of the B.A. Degree Course. In June 1935 the B.Sc. Pass Courses were opened in several subjects. Subsequent to the integration of the States of Travancore and Cochin in July 1949, the college was affiliated to the Travancore University and a few Post-Graduate Courses such as the M.Sc. Course in Applied Chemistry and M.A. Degree courses in English and Malayalam were started. With the reorganisation of States and the formation of Kerala State and the subsequent passing of the Kerala University Act in 1957, the Kerala University came into existence in the place of the Travancore University. In the new set-up, B.A. Degree Course in Sanskrit, M.A. Degree Courses in History and Hindi and M.Sc. Degree Course in Zoology were started in 1959. Bengali was introduced as one of the languages for the Pre-University (later Pre-Degree) Course and is one of the languages for Part II for the Three Year Degree Course from 1961 onwards.

The Maharaja's College now offers instruction for the following courses of study:—1. Pre-Degree, 2. Pre-Professional (Non-Engineering), 3. B.A. Degree (History, Economics, Malayalam, Hindi and Sanskrit), 4. B. Sc.Degree (Mathematics, Physics, Chemistry, Botany and Zoology), 5. M.A. Degree (English, Malayalam, Hindi, History and Economics) and 6. M.Sc Degree (Mathematics, Physics, Pure Chemistry, Applied Chemistry, Botany and Zoology). In 1962-63 there were 1548 students on the rolls of the college and 118 members on the teaching staff. The college library had 43,444 volumes in it. There are three hostels attached to the college, two for men and one for women. The Men's Hostels accommodated 220 students and Women's Hostel 100.

Union Christian College, Alwaye

The Union Christian College situated at an elevated place about two miles from Alwaye town was started in 1921. Its administration is vested in the Union Christian College Council and Association registered under the Companies Act. It consists of representatives of the Orthodox Syrian Church, Marthoma Syrian Church and the Church of South India. In the academic year 1962-63 there were 848 students on the rolls of the college and 51 members on

the teaching staff. The college offers instruction for the Pre-Degree and the B.A., B.Sc. and M.Sc (Physics) Degree Courses. It also provides facilities for research in Psychology leading to the M. Litt. Degree. The college library contains more than 14,689 books. A few scholarships are awarded by the management to poor and deserving students. A noteworthy feature of this college is that it imparts religious instruction to Christian students and moral instruction of a general nature to others. There are six hostels attached to the college. In 1962-63 they provided accommodation to 354 students.

St. Teresa's College, Ernakulam

The St. Teresa's College, one of the oldest Women's Colleges in the State, was founded in 1925 by the Carmelite Sisters of St. Teresa's Congregation, Ernakulam, (Archdiocese of Verapoly). It was raised to a First Grade College in 1927. The college offers instruction for the Pre-Degree Course, and the usual B. A. and B. Sc. Degree Courses. A special feature is that the college offers courses of study leading to the B. Sc. and M. Sc. Degree courses in Home Science and the Diploma Course in Social Service. In 1962-63 the College had 775 students and 44 teachers. It had a good library of 12,417 volumes. Its two hostels accommodate 280 students at a time.

Sacred Heart College, Thevara, Ernakulam

The Sacred Heart College, Thevara, situated upon the breezy eastern bank of the Vembanad Lake opposite the Willingdon Island, was established in 1944. It is attached to the Sacred Heart Monastery, Thevara. The college imparts instruction for the Pre-Degree Course and the Diploma Course in Social Service, in addition to the B.A., B. Sc., B. Com., M. A., M. Sc., M. Com., and M. S. W. Degree Courses. In 1962-63 there were 1,398 students on the rolls of the college and 77 members on its teaching staff. The college library contained 20,671 volumes. Six blocks of buildings constitute the hostel in this college and they accommodate 548 students.

St. Albert's College, Ernakulam

The St. Albert's College which was started in July 1946 is located in the heart of Ernakulam city. It is managed by the Archbishop of Verapoly. The College

offers instruction for the Pre-Degree and B. A. and B. Sc. Degree Courses. In 1962-63 the total number of students on the rolls of the college was 927 while there were 49 members on the teaching staff. The college had a library containing 12,799 books. There are two hostels which can accommodate 140 students.

Nirmala College, Moovattupuzha

The Nirmala College, which is located about a mile and a half from the heart of Moovattupuzha town, was started in 1953. It is run by the Catholic Bishop of Kothamangalam. The institution offers instruction for the Pre-Degree and the B. A. and B. Sc. Degree Courses. In the academic year 1962-63 the total number of students on the rolls of the college was 967 while there were 41 members on the teaching staff. The college library contained a collection of 6,700 books. There are separate hostels for men and women.

Sree Sankara College, Kaladi

The college named after the great Advaita philosopher, Sree Sankara, was established at Kaladi, his birthplace, in 1954. The Patron of the College is His Holiness Jagatguru Sree Sankaracharya of Sringeri Mutt. The institution is administered by a Board of Directors, viz., the Sree Sankara College Association constituted under the Companies Act. The Board consisting of nine members includes the Principal who is an *ex-officio* member and six members nominated by His Holiness and two others elected by the members of the general body. The Managing Director is elected by the members of the Board. The college offers instruction for the Pre-Degree and the B. A., B. Sc. and B. Com. Degree Courses. Apart from the teaching of the usual subjects in Arts and Science this is the only college in South India where special provision has been made for the teaching of Vedanta philosophy. Further, arrangements are being made to provide facilities for research in Sanskrit. In the academic year 1962-63 there were 546 students on the rolls of the college and 36 members on the teaching staff. The students studying Sanskrit as a special subject are given free tuition. The college maintains a library containing more than 6,228 volumes. There are separate hostels for men and women where only vegetarian meals are served.

Mar Athanasius College, Kothamangalam

The Mar Athanasius College, which is located just one mile to the south of Kothamangalam town, was started on the 14th July 1955. It is owned and managed by the Mar Athanasius College Association, a non-profit Association of Jacobite Syrian Christians registered under the Charitable Societies Act. A body consisting of about 35 members elected by and from among the share-holders forms the Board of Governors of the College. An Executive Committee consisting of 9 members elected by the Board of Governors from among its members manages the college. The college offers instruction for the Pre-Degree Course and the B. A. and B. Sc., Degree Courses. In the academic year 1962-63 there were 697 students and 37 teachers in this college. The college library contains more than 3,200 volumes. There are two hostels for men and two for women.

Junior Colleges

Four Junior Colleges offering instruction for the Pre-Degree Course have been opened in this District in 1964-65. They are the St. Peters College, Kolancherri, Newman College, Thodupuzha, S. N. M. Junior College, Moothakunnam and St. Xavier's College for Women, Alwaye.

University Centre at Ernakulam

The Kerala University, with its headquarters at Trivandrum in the southern end of the State, has not been able to fulfil its cherished goals, especially since the affiliated institutions were lying scattered in different parts of the State. Hence provision was made in the Third Plan of the University to establish University Centres at Ernakulam and Calicut. The purpose of establishing the Centres is to promote active participation by the University in the creation of facilities for post-graduate training and research in both Science subjects and in Humanities in selected places in the State, where the existence of a number of colleges renders possible a joint effort by the University and by affiliated colleges to develop the necessary departments with their associated laboratory, library and other requirements.

The site chosen for the Ernakulam Centre is at Thrikkakara. It is about six furlongs from the Kalamasseri

Police Station on the National Highway between Ernakulam and Alwaye. As the colleges in Ernakulam town and the Union Christian College in Alwaye are included in the scheme of studies at the Ernakulam Centre, the site occupies an intermediate position between the institutions in the two places. The Departments of study and research now functioning at the University Centre, Ernakulam, are Physics, Hindi, Law and Management Studies. The buildings for the Centre have not yet been constructed. The Department of Physics is, therefore, housed in the Union Christian College, Alwaye, and the Post-Graduate courses in Hindi and Law in rented buildings at Ernakulam. The School of Management Studies, a separate account of which is given elsewhere, is located within the premises of the F.A.C.T. Ltd., Eloor. Besides these Post-Graduate Departments, it is proposed to provide at the Ernakulam Centre a Library, a Student's Hostel, a Students' Centre and an administrative unit. The idea behind the whole scheme is that in course of time the Centre would be so well-equipped that it would develop into a separate University serving the needs of Central Kerala.

School of Management Studies, Ernakulam Centre

The School of Management Studies, University of Kerala, was established in 1964 as part of the wider scheme of promoting management studies throughout the country. Located in a fast developing industrial and commercial centre, it undertakes a programme of teaching, research and service with a view to assisting the industrial and commercial establishments of this region to raise standards of management and help them to develop a nucleus of managerial personnel with scientific training. The school offers two part-time Post-Graduate Diploma Courses in Business Management and Industrial Management. Classes are held in the evenings, three to four days a week, over a period of three academic years of 9 terms. Successful candidates are awarded the Diploma in Business Management (D. B. M.) or Industrial Management (D. I. M.) of the Kerala University. The course is designed to improve managerial abilities of junior and middle level executives by helping them to acquire a framework for thinking about their present and future responsibilities as managers. They also study the relevant management subjects systematically in the light of their knowledge and experience and gain a mastery of the principal tools of

management. The course of study consists of two parts, viz., Intermediate and Final. The first year Intermediate course will be common to both Business Management and Industrial Management and will comprise the study of 8 subjects as follows:—(1) The Growth and Structure of Industry and Commerce; (2) The Economic Aspects of Industry and Commerce; (3) The Legal Aspects of Industry and Commerce; (4) Psychology; (5) Financial Accounting and Cost Accounting; (6) Statistical Method; (7) Work Study, Organisation and Evaluation; (8) History and Nature of Management. The final course is separate for Industrial Management and Business Management. The former concentrates on the industrial activities of an enterprise while the latter is mainly concerned with commercial aspects. Each course is of 2 years' duration and has 8 subjects for the final examination. The details are as follows :—

(a) Industrial Management

1. Management Principles, 2. Management Practice, 3. The Personnel Function, 4. Development and Design, 5. Factory Organisation, 6. Production Planning and Control, 7. Plant Lay-out and Materials Handling, 8. Work Study.

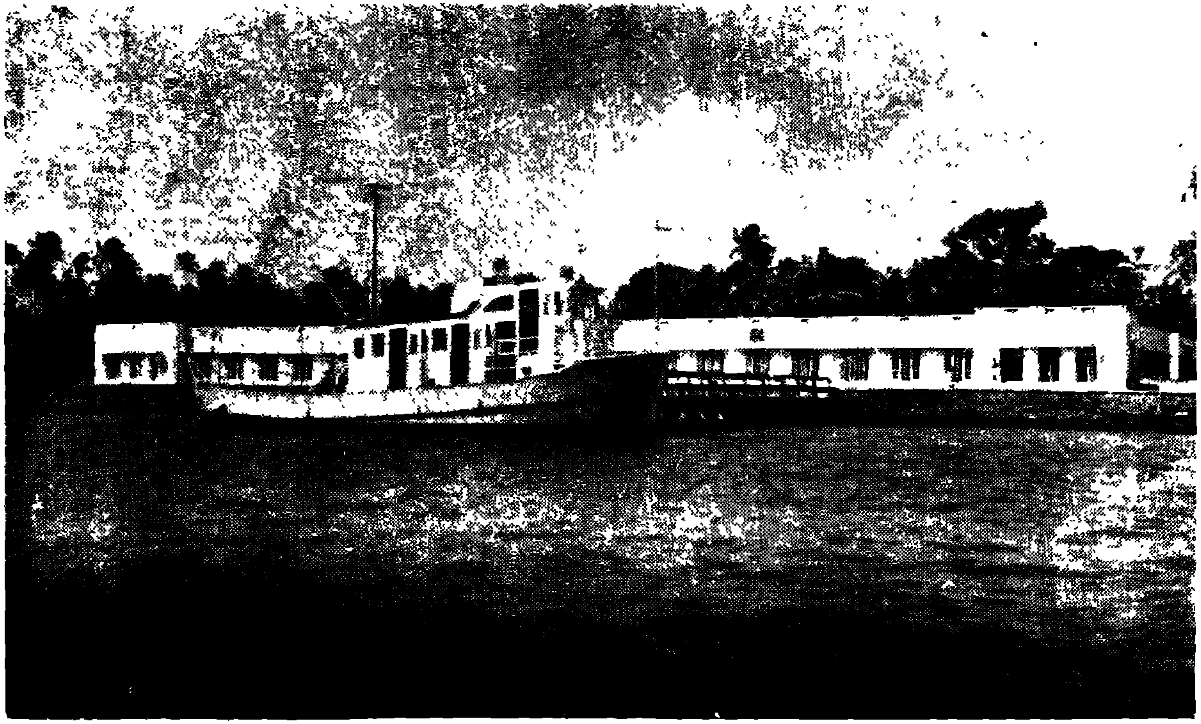
(b) Business Management

1. Management Principles, 2. Management Practice, 3. The Personnel Function, 4. Financial & Higher Control, 5. Purchasing, Store-keeping and Transportation, 6. Sales Organisation and Methods, 7. Market Research and Sales Promotion, 8. International Trade.

Department of Marine Biology and Oceanography

This Department was established at Ernakulam by the Kerala University in 1957 long before the University Centre was conceived of. A research vessel "*Conch*" equipped with the assistance of the Government of India and the Indo-Norwegian Foundation is attached to this Department. The only one of its kind owned by an Indian University, it undertakes cruises along the Kerala coast and collects data regarding marine life and the physical, chemical and geological aspects of the sea within the 200 fathom line.[1] It also participates in the work of the International Indian Ocean Expedition whose Biological Centre is located

1 The work of the Department in the field of Fisheries research is given in Chapter IV.



KERALA UNIVERSITY OCEANOGRAPHIC LABORATORY AT ERNAKULAM WITH THE RESEARCH VESSEL "CONCH"

in the Oceanographic Laboratory of the University. In addition, the Department conducts Post-Graduate courses, one in Marine Biology and another in Oceanography and affords facilities for research for the Doctorate Degree. The laboratory buildings of the Department, located on the Ernakulam foreshore, with easy access to the sea, harbour and backwaters, consist of a lecture hall, Biology and Chemistry laboratories for post-graduate students, working space for doctoral fellows, individual rooms for research staff as also a library, museum and aquarium. The laboratory is open all the year round and a few visiting scientists can be provided accommodation and working space, if sufficient notice is given. The laboratory is supplied with 230 V. A. C., running water and gas and has also a dark room and air-conditioned room for delicate instruments. Provision also exists for a large sea water aquarium of 17 tanks (closed system) as also experimental tanks for rearing and observation. The library is fairly large and receives most of the important marine biological and oceanographical journals of the world. For collection at sea, there is one 30 ton power vessel (Diesel) of 8 knots speed with a Captain and crew, and with trawling, dredging and bottom sampling equipment, laboratory space on deck for 2 scientists, echo-sounder, Radio telephone, Direct Electric current 24 V. and Electric log. The vessel works throughout the year except during the south-west Monsoon. The results of investigations conducted at the University Laboratory are published in the Bulletin of the Department issued once or twice a year.

PROFESSIONAL AND TECHNICAL SCHOOLS

In recent years technical education has achieved considerable progress thanks to the keen interest taken by the Government and private agencies. The most important schools for technical education in the District at present are the followings :— (1) Commercial Institute, Ernakulam, (2) Government Polytechnic, Kalamasseri, (3) Government Industrial School, Njarakkal, (4) Industrial Training Institute, Kalamasseri, (5) Junior Technical School, Perumbavur, (6) Tailoring and Garment-making Centre, Chottanikkara, (7) School of Nursing, Ernakulam and (8) Fishermen Training Centre, Ernakulam. Details of these institutions are given in the following sections.

Government Commercial Institute, Ernakulam

The Government Commercial Institute, Ernakulam, is the only one of its kind in Kerala State owned by the Government and imparting instruction in various commercial subjects such as Shorthand, Typewriting, Accountancy, Theory and Practice of Commerce, Banking and Commercial Geography. Students are coached here both for the Lower and Higher Grade Technical Examinations of the Kerala Government in the different subjects. This Institute was formerly known by the name 'Government Trade School' and was started by the erstwhile Cochin Government at Trichur about 1910. In 1944 it was shifted to Ernakulam, a commercial centre, in order to afford increased facilities to students and office-going people. The institute is housed in one of the blocks of the Ram Mohan Palace bulidings. The strength of the teaching staff is 5. Almost all applications for admission to the various classes are entertained by the Institute. However, admissions to the Typewriting class are made on the basis of the availability of seats as determined by the number of Typewriters.

Government Polytechnic, Kalamasseri

This is a Government Institution under the control of the Director of Technical Education. It was originally started in 1951 with four technological courses, viz., Automobile Engineering, Chemical Engineering, Food Technology and Fishery Technology. The last three of the above courses were transferred to Calicut in 1957 and three new engineering courses, viz., Civil, Mechanical and Electrical were introduced. The Chemical Operators' Courses were also introduced subsequently. The courses in Civil, Mechanical, Electrical and Automobile Engineering and the Chemical Operator's course are of three years' duration. A post-diploma course in Automobile Engineering which extends to a period of one year is also offered by the Polytechnic. In 1962-63 the institution had 402 students on its rolls and 40 members on its teaching staff. The library of the Polytechnic had 1,372 volumes. It has two hostels providing accommodation to about 120 students.

Government Industrial School, Njarakkal

The Industrial School, Njarakkal, is under the control of the Director of Technical Education. It offers instruction in carpentry, weaving and coir works. The weaving

and carpentry courses are of four years' duration and 12 students each are admitted to these courses. The course in coir works is for two years and 12 students are admitted to this course also. There are three teachers on the staff of this institution.

Industrial Training Institute, Kalamasseri

The Industrial Training Institute, Kalamasseri, first started functioning in March 1957 as the Work and Orientation Centre. The scheme was abolished in September 1958 but it was reintroduced with certain modifications. The modified scheme provided training for 18 months in some engineering trade or other to 96 students at a time. The successful trainees were also to undergo apprenticeship for a period of six months in a factory. The training was imparted in the following engineering trades, viz., 1. Electrician, 2. Lineman and Wire-man, 3. Fitter, 4. Welding, 5. Sheet Metal Workers and 6. Carpentry. In November 1959 the Government of India decided to start an Industrial Training Institute at the Centre with an additional 96 seats in the existing trades. In February 1962 the following additional trades were also introduced, viz., 1. Blacksmithy, 2. Machinists, 3. Motor Mechanics, 4. Turner and 5. Plumber. In 1963-64 the Industrial Institute was providing training to 560 students. In addition, a short term course (Accelerated Craftsman Training Scheme) was also started in February 1963 in the wake of the National Emergency and a special batch of 178 trainees was selected to undergo training. The Emergency Trainees are given only six months institutional training and on the completion of the same they are recruited for the National Defence Services. One-third of the total number of trainees in the Institute are given stipends of Rs. 25 per mensem and 50% are provided with free hostel accommodation. All the trainees are given free medical aid. A Training-cum-Orientation course of 9 months has also been started at the Institute in August 1963 and 50 boys are given instruction in Business Management. With effect from August 1962 part-time classes for industrial workers are also being conducted in the centre. The duration of the course is two years.

Junior Technical School, Perumbavur

The Junior Technical School, Perumbavur, was started in 1960-61. It trains pupils in productive

occupations of a technical nature. The curricula consist of Humanities, General Science, and Engineering subjects and different trades like Foundry, Fitting, Carpentry, Welding, Turning, Smithy etc. The duration of the course is three years. The medium of instruction in the early stages is Malayalam but it is replaced by English by the time the students reach the final year of the course. In 1962-63 the school had 168 students and 23 teachers. The Junior Technical School Leaving Certificate course is recognised as equivalent to the S. S. L. C. for purpose of appointment in public services.

Tailoring and Garment-Making Centre Chottanikkara

A Tailoring and Garment-Making Centre is functioning at Chottanikkara. It imparts training to 12 students and has only one teacher. It is under the administrative control of the Director of Technical Education.

School of Nursing, Ernakulam

There is a School of Nursing at Ernakulam. Nurses' training was started in the General Hospital, Ernakulam, as early as 1924. Upto 1959 the number of seats sanctioned for the training course was 25. A new scheme of integration of public health with the basic course in nursing was started in 1959 and the annual admission was raised to 31 under this scheme. Two rooms in the out-patient department in the General Hospital, Ernakulam, are used as class rooms and nursing arts laboratory. Teaching materials such as models, charts, slides, and projectors, books and nursing equipments received from the UNICEF are being used in the school. All the trainees are members of the local branch of the Red Cross Society.

Fishermen Training Centre, Ernakulam

The Fishermen Training Centre, Ernakulam, which is run by the Department of Fisheries was established in 1956. It is intended mainly for the training of fishermen in modern fishing devices using mechanised fishing vessels. Thirty fishermen are given training at a time for a period of 38 weeks. The training course consists of the following subjects :— 1. Fishing Methods, 2. Gear Technology, 3. Elementary Principles of Navigation and 4. Running and maintenance of internal combustion engine. Practical

fishing classes are also given to all trainees at sea for a period of 3 months. In all 379 fishermen trainees completed their Certificate Course at the Centre during the period from June 1956 to April 1964. All the trainees are given a stipend of Rs. 50 per mensem by the Government. In addition, an amount of Rs. 15 per mensem is also given to them as food allowance during the 3 months when they are taken out to the sea for their practical fishing classes. Besides the Superintendent, there are two Technical Assistants and two Mechanical Instructors on the staff of this institution.

GRANT-IN-AID TECHNICAL SCHOOLS

In addition to the above institutions run directly by the Government, there are a few Grant-in-Aid Industrial Schools in this District. The most important of them are 1. Abalasaranam Girls' Industrial School, Ernakulam, 2. Chevaliar Paul Luiz Memorial Industrial School, Perumanur, Ernakulam, 3. Little Flower Industrial School, Chathiath, Ernakulam and 4. St. Thomas Weaving School, Mookkannur.

Abalasaranam Girls' Industrial School, Ernakulam

This institution located in the T. D. Road, Ernakulam, was started in 1926. It gives training in Needle-work, Embroidery, Knitting, Weaving, Spinning, Coir-making, Lace-making, etc. to poor girls. In 1962-63 there were 53 girls undergoing training in the various courses and the school had three teachers on its staff. A lump sum grant of Rs. 120 per mensem is paid by the Government to this school. Poor girls and orphans admitted to the school are given free education and food.

Chevaliar Paul Luiz Memorial Industrial School, Perumanur, Ernakulam

This school was started in 1928. It trains up students in various subjects such as Needle Work, Embroidery, Krochet knitting, Weaving and Tailoring. Grant at the rate of Rs. 106 per month is paid by the Government to the management of the school. During 1962-63 there were three teachers and 43 students in this school.

Little Flower Industrial School, Ernakulam

This school, situated at Chathiath within the Ernakulam Municipal limits, was started in 1102 K. E. (1927).

It imparts training in Weaving, Spinning, Book-Binding, Krochet-knitting, Embroidery, Tailoring, Needle-work and Cutting. The duration of each course is four years. A lump sum grant at the rate of Rs. 120 per month is paid by the Government to the management of the school. In 1962-63 there were 51 students and 4 teachers in this school.

St. Thomas Weaving School, Mookkannur

The St. Thomas Weaving School, Mookkannur, located in Kothakulangara North Village, Alwaye Taluk, was started in 1924. It imparts training in weaving to the inmates of the Orphanage under the same management and also to the poor persons in the locality. The weaving course extends over a period of two years. In 1962-63 the school had 17 students and one teacher. A sum of Rs. 40 per month is given by Government as grant to this institution.

Social Institute, Kalamasseri

Reference may also be made to the Social Institute, Kalamasseri. Started in 1955, it is owned and managed by the Archbishop of Ernakulam. The Institute imparts instruction for the Certificate course in Electrical Engineering which extends to a period of two years. The Centre also offers courses in Typewriting and Shorthand, Book-keeping and Accountancy, Carpentry, Smithy, Welding, Lathe and Printing. The Institute is expected to accommodate 200 students at a time for all the courses together. The teaching staff consists of 14 members. There is a library containing about 700 books along with a public reading room. There are hostel facilities for the students undergoing training here. Attached to the Institute there is a Social Hospital. In addition, there is a Boys' Social Home and 25 orphans are trained here in various professions. Ample facilities are provided for in-door and out-door games. The church attached to this institute has been dedicated to St. Joseph, the Patron Saint of Labourers. It was established in 1963.

PROFESSIONAL AND TECHNICAL COLLEGES

There are six colleges for professional and technical education in the Ernakulam District. They are the Law College, Ernakulam, Mar Athanasius College of Engineering, Kothamangalam, St. Joseph's Training College

for Women, Ernakulam, S. N. M. Training College, Moothakunnam, Government Ayurveda College, Thrippunithura, and Home Science College, Ankamali. In addition, there is the Central Institute of Fisheries Operatives run by the Government of India at Ernakulam. Brief accounts of these institutions are given below:—

Law College, Ernakulam

Till the integration of Travancore and Cochin, there was no Law College in Ernakulam. In August 1949 the Trivandrum Law College which was under the control of the Travancore University was shifted to Ernakulam to fit into the new set-up arising out of the integration of the two States. Under the Kerala University Act of 1957 the Law College was transferred to the control of the Government. It is located in the old Legislative Council Building at Ernakulam. The college provides instruction for the B. L. and M. L. Degree Courses of the University of Kerala. In 1962-63 the strength of the college was 238. It had seven members on its teaching staff. The college library contains 9,299 books. There are two Hostels attached to the college.

Mar Athanasius College of Engineering, Kothamangalam

The Mar Athanasius College of Engineering which is located just one mile to the south of Kothamangalam town was started in 1961. It is owned and managed by the Mar Athanasius College Association. The college coaches students for the B. Sc. Engineering Degree in Civil, Mechanical and Electrical branches. In 1962-63 there were 289 students on its rolls and 20 members on its teaching staff. The college library contains a collection of 1,012 volumes. There is a Workshop attached to the college.

St. Joseph's Training College for Women, Ernakulam

The St. Joseph's Training College for Women was started in 1957. It is the only Women's Training College in Ernakulam District. The management of the college is vested in the Syrian Carmelite Congregation of the Archdiocese of Ernakulam. The college offers instruction for the B. Ed. Degree Course. In 1962-63 there were 97 students on its rolls and 8 members on its teaching staff. The college library contains 3,500 volumes.

S. N. M. Training College, Moothakunnam

The Sree Narayana Mangalam Training College, Moothakunnam, was founded by the Hindu Matha Dharma Paripalana Sabha, Moothakunnam, in August 1960. The College is administered by a managing body consisting of six members with the Principal as *ex-officio* member. The college coaches students for the B. Ed. Degree course. In 1962-63 it had 99 students on its rolls and six members on its teaching staff. There are 1000 volumes in the college library. Attached to the college there is a hostel. The management also runs the S. N. M. Higher Secondary School which serves as the Model School for the Training college.

Government Ayurevda College, Thrippunithura

The Ayurveda College, Thrippunithura, was started by the Government in September 1959.[1] It is housed in the Guest House of the Kanakakkunnu Palace. It imparts instruction for the D. A. M. course (Diploma Course in Ayurveda) which extends over four years with an internship of 9 months. The students are given practical training in different stages of their study. While the first and second year students are given practical training in identification of medicines, medicinal plants, herbs and minerals, etc. and preparation of medicines, the third and fourth year students are given clinical training in the Hospital. Much help is being rendered in practical training by the attached Pharmacy and Botanical Garden, which is full of medicinal plants.

The students who are given clinical training get a thorough knowledge in Ayurvedic treatment because the patients in the in-patient department are placed under the charge of each student for examination, diagnosis and prescription, though the treatment is given only with the approval of the Physician in charge of the beds concerned.

The Collegiate Pharmacy is housed in a building adjoining the present college building. It is mainly intended to provide practical training to the students in the preparation of medicines. It is noteworthy that the Central Government and All India Arya (Hindu) Dharma Seva Sangh, New Delhi, are granting stipends and scholarships

1 Before the starting of the College, Ayurveda was one of the subjects in the Sanskrit College with a four years' course, namely, Sastra Bhooshanam in Ayurveda.

to a number of poor and deserving students of this college for the encouragement of the study of this ancient system of treatment. In 1962-63 the college had 124 students on its rolls. There are 249 volumes in the college library. The Government Ayurveda Hospital, Thrippunithura, is under the Ayurveda College.

Home Science College, Ankamali

The Home Science College, Ankamali, a purely private institution, was started in July 1963 under the management of the Sisters of Nazareth, Paduapuram. It is located at Ankamali (Alwaye Taluk) near the Railway Gate close to the place acquired for the Transformer factory. The place is newly called St. Martin Centre. The College offers a two-year Diploma Course in Home Science on the model of that in the Lady Irwin College, New Delhi. In 1962-63 it had 30 students on its rolls and 10 members on its teaching staff. The number of volumes in the library was approximately 300. Attached to the College there is a hostel which can accommodate 100 students.

Central Institute of Fisheries Operatives, Ernakulam

The Central Institute of Fisheries Operatives, Ernakulam, started functioning in March 1964. It is located in the premises of the erstwhile "Princes Hostel" with a group of six buildings in an area of 4.27 acres. The objective of the Institute is to conduct courses for the following fishery operatives:—1. Master Fishermen, 2. Engine Drivers and Shore Mechanics, 3. Gear Technicians and 4. Boat Building Foremen. The training to be imparted at the Institute would consist of work on board the fishing vessels and in workshops, gear fabrication rooms, boat building yards and class-rooms with emphasis on practical training. The students who pass the courses in the Fishermen Training Centres in the various parts of India and have the necessary educational background will be selected for training as deck operatives at the Institute. Initially only the Master Fishermen course has been started at the Institute and 21 trainees from the States of Gujarat, Maharashtra, Mysore, Kerala, Andhra Pradesh and Orissa have joined the course. A stipend of Rs. 100 is paid to each trainee by the sponsoring authorities. The Institute provides free hostel accommodation and tuition. It will have its own training vessel and workshop. It is expected that the

Central Institute of Fisheries Operatives will serve as the pivotal point of all operative training activities in India and meet the demand of the developing fishing industry for skilled operatives.

SCHOOLS FOR THE CULTIVATION OF FINE ARTS

The most important schools in this District for the cultivation of fine arts are the Radha Lakshmi Vilasom Fine Arts School, Thrippunithura, the Radha Lakshmi Vilasom Academy of Music, Thrippunithura and the Cochin School of Arts, Ernakulam. The first two are Government institutions while the latter is a Grant-in-aid School. Brief accounts of the institutions are given below:—

R. L.V. Fine Arts School, Thrippunithura

This institution started functioning as a Music School under private management in 1936. It was taken over by the Government in 1944. The school provided training for girls in arts and crafts such as music, dancing, drawing, painting and needle-work. The musical section offered training for the Junior and Senior Music Examinations held by the Government of Cochin. In 1956 the music section was upgraded as a Music Academy and separated from the school. In 1958 new courses in Kathakali (orthodox style), Bharathanatyam and Painting were instituted. The R.L.V. School now provides instruction in the following courses:—1. a six year Diploma course in Kathakali with a further two years of post-Diploma study, 2. a four year Diploma course in Bharathanatyam with an additional two years of post-Diploma study, 3. a two year course for the Certificate Examination in Drawing and Painting with another two years of study for the Diploma examination and an additional one year for post-Diploma. The Kathakali and Bharathanatyam courses are comparable to the corresponding courses in the Kerala Kalamandalam at Cheruthuruthi and the Drawing and Painting course to the parallel course in the Ravi Varma Painting School, Mavelikkara. The school also contains a needle work section where girls are trained for the final industrial examination of the Kerala Government. In 1962-63 there were 54 students and 16 teachers in the school. The R.L.V. School is perhaps the only Government

institution in Kerala which gives training in a variety of arts with a professional bias.

R.L.V. Academy of Music, Thrippunithura

The music section of the Radha Lakshmi Vilasom Fine Arts School, Thrippunithura, was converted into an Academy after the model of the Sri Swathi Thirunal Academy of Music, Trivandrum, with effect from August 1956. The Academy provides instruction in Vocal Music and Veena. The *Ganabhooshanam* title is given to successful candidates at the end of a four year course. In 1962-63 there were 112 students (18 boys and 94 girls) and 9 teachers in the Academy. There are proposals to start the Violin course and the post-Diploma course in Vidwan.

Cochin School of Arts, Ernakulam

This institution is situated within the premises of the Public Library, Ernakulam. Apart from the usual drawing, painting and other classes for the Group Certificates and Diploma in Art, the school specialises in teaching statue-making. The duration for the Certificate course is 3 years and that for the Diploma 5 years. This is the only institution in the whole of Kerala where a six-feet likeness statue in bronze has been tried successfully. During the year 1962-63 there were 2 teachers and 28 students in the school. This institution is being given grant by the Government at the rate of Rs. 50 per mensem in addition to Rs. 26 per mensem for colour materials.

ORIENTAL SCHOOLS AND COLLEGES

Sanskrit College, Thrippunithura

The Sanskrit College, Thrippunithura, is the premier institution in the District in the field of oriental studies. Founded as early as 1914 it owes its origin to the munificence of H.H. Sri Rama Varma, the then Maharaja of Cochin, who was himself a profound Sanskrit scholar. It was started with a view to encouraging the traditional method of teaching Sanskrit, especially the *Sastras*. Necessary funds for the institution were set apart as endowments. The college was originally of the residential type. Boarding, lodging and tuition were free. Later on the hostel was abolished and students were given stipends instead.

To start with, the college imparted instruction in *Nyaya*, *Vedanta* and *Vyakarana*. Those who passed the final Examinations from here were given the Sastrabhooshana Diploma in the respective *Sastras*. The institution was in its early years managed by a Committee set up by the Cochin Government, but in 1919 it was placed under the control of the Education Department. In 1924 a Committee of Sanskrit scholars was constituted to advise the Government in regard to the management of the institution as well as of the Grandha Library attached to it. On the recommendation of the Committee, several reforms were introduced. These helped to widen the scope and usefulness of the institution and to improve the efficiency of the instruction imparted in the different branches. In 1927 the whole syllabus of studies for the Sastraic and Kavya classes was revised. *Ayurveda* and *Jyotisha* were introduced as new subjects of study and the rules regarding the award of stipends and scholarships were liberalised so as to make them available to a larger number of deserving students. An annual *Sadas* in which recognised scholars took part and the skill of the students was tested by means of discussions and debates was instituted. The *Sadas* continues to be held even now under the patronage of the Maharaja of Cochin. In recent years the Sanskrit College has been reorganised on modern lines. It offers instruction for the Pre-Degree Course, the 4 year Sastrabhooshana Title Course and the B.A. Degree Course. In 1962-63 the college had 51 students on its rolls and 8 members on the staff. The Sanskrit High School attached to the College had 172 students and 12 teachers. The College Grandha Library had 2060 volumes and the High School, 1020. It may be mentioned here that the Grandha Library contains some rare and valuable manuscripts.

In addition to the Sanskrit College and Sanskrit High School at Thrippunithura, there are two other Oriental Schools in the District. There is a Sanskrit Middle School at Kaladi run by the Ramakrishna Advaitasramam. The Cochin Thirumala Devaswom runs a Vedic and Sanskrit Patasala at Mattancherri. It was established in 1877 under the management of the Cochin Thirumala Devaswom Committee. In its primary section training is given to young boys and girls in the study of Devanagari and Malayalam scripts, while in the higher classes instruction is given

in the "Veda Mantras", "Gitasastram" and Sanskrit Grammar and Literature. The school also coaches students for the Examinations conducted by the Bharatiya Vidya Bhavan, Bomabay, viz., Prarambha, Pravesh, Sanskrit Parichaya and Sanskrit Kovid. The institution has four qualified teachers on the staff. The number of students admitted to the school is limited to a maximum of 54. The Patasala maintains a library containing a good number of books in different languages, though the majority of them are of Vedic and Sanskrit series. In 1963-64 the Government of India gave a grant of Rs. 6,000 to this institution for improving its library and equipments.

St. Joseph's Pontifical Seminary, Alwaye

Reference may also be made in this Chapter to the St. Joseph's Pontifical Seminary, Alwaye, which by its history and size, holds a unique place among the Seminaries, not only of India, but of the entire Catholic world. Started at Verapoly by the Carmelite Fathers as early as 1682, it was shifted first to Puthenpally (near Verapoly) in 1866 and finally to Alwaye, its present location, in 1932, owing to the need for greater accommodation. Since 1955, the institution functions in two Sections--the Technology Section in Mangalapuzha, near the Mangalapuzha bridge on the National Highway 47, and the Philosophy Section in Carmelgiri, which is about a mile distant from Mangalapuzha and is located on the left bank of the Periyar river. Its central position in Kerala and its beautiful location near the Periyar river make it also an attractive place for seminars and spiritual recollections for laymen during the Summer Holidays.

A characteristic feature of the St. Joseph's Seminary is the universality of both the staff and the students. In 1888 it was declared the central Catholic Seminary common to all Malabar and as such, it caters for all the Catholic Dioceses of Kerala and all the three Catholic Rites, viz., Syrian, Latin and Malankara. Students of other Dioceses of India are also admitted to the Seminary. In the academic year 1964-65, there were 667 students, belonging to 17 Dioceses and to 5 religious Congregations whose members come as day scholars from their religious houses built in the surroundings. On the staff of the Seminary, together with Indian

Fathers, are several Carmelite Fathers from different countries of Europe. The institution is now affiliated to the Lateran University in Rome and is entitled to award the Bachelorship of Divinity. The Seminary Library possesses a great treasure of manuscripts and publications. It contains 46,115 volumes - 30,510 in the Mangalapuzha Section and 15,605 in the Carmelgiri Section. The Library also receives 273 periodicals of different standards from all parts of the world. Many of these are received in exchange for one or other of the two English and three Malayalam periodicals of the institution. Many known scholars in Malayalam literature and Hinduism such as Paulinus, Marcelline, Zacharias etc. have worked here, and the tradition of research and publications continues unsullied to this day with the different works published by the S.H. League and the Seminary itself and printed in the Press attached to the institution.

ADULT LITERACY, SOCIAL EDUCATION AND MEASURES FOR THE DIFFUSION OF CULTURE AMONG THE MASSES

Social Education has received considerable attention at the hands of the Government in recent years. In 1961 the Government of Travancore-Cochin State took active steps for the promotion of social education. An Adult Education Board was constituted at the State level to advise the Department of Education in the matter. In various parts of the State social education centres were opened under the control of Social Education Organisers. When the N.E.S. Blocks were organised in 1952, social education was accepted as an integral part of the activities in the N.E.S. Blocks. Till recently in every Block there were two Social Education Organisers—one a man and the other a woman. However, the posts of male Social Education Organisers have since been abolished and their duties have devolved on the Panchayat Extension Officers in every Block.

Adult literacy is an important item in the programme of social education. Every effort is therefore made to wipe out pockets of illiteracy that exist in certain backward areas. In such areas literacy classes are organised under the auspices of the N.E.S. Blocks. In 1962-63 alone 335 adults were made literate in the Ernakulam District through such literacy class.

Women's Clubs are also organised in all the Blocks with a view to giving a fillip to social education. On an

average there are 10 Women's Clubs in a Block. Block-level Unions of *Mahilasamajams* have also been formed and these Unions are in their turn federated into a District-level Union. The *Mahilasamajams* conduct *Balavadi* classes for children, and music and craft classes for girls and women and also run libraries and reading rooms in select centres. They organise group discussions on family planning, child care, ante-natal and post-natal care, food and nutrition, balanced diet, etc. In each Block a Women's Industrial Co-operative Society has also been formed to organise and undertake productive industrial activities, such as garment-making, toy-making, binding, candle-making etc.

Training camps and study tours are also organised as part of the social education programme in the N.E.S. Blocks. Radio listening groups are formed in rural areas. They are recognised by the All India Radio and are known as Radio Rural Forums. The members of the Forums listen to the broadcast programmes, discuss the information conveyed through them and send questions to the All India Radio for seeking further clarification. Each Forum consists of 20 to 25 members with a leader to guide the discussions and a convener to keep the records. Rural exhibitions are also organised at the Block level with a view to educating the people in new practices with the aid of posters, charts, models, specimens etc. A large number of Sports Clubs are also organised in the Block areas and tournaments and matches are organised once a year under the auspices of committees specially constituted for the purpose. Arts and Dramatic Clubs have also been similarly organised and cultural activities like youth festivals are conducted in each Block. Efforts are also made to encourage and develop traditional forms of recreation such as folk dance, folk drama, folk songs etc. In certain Blocks a complete set of stage equipments is kept at the Block Head-quarters for the use of the public. In several Blocks Community Centres have been organised and libraries, reading rooms, sports, etc., are conducted under their auspices. In each Block Headquarters there is an Information Centre and it has been equipped with reference books, newspapers, charts, photographs, etc., to provide the people with information on various matters. Thus the Social Education Programme is being actively implemented through the agency of the N.E.S. Blocks.

LITERARY, SCIENTIFIC AND CULTURAL SOCIETIES

Among the important literary and cultural societies functioning with their headquarters in Ernakulam may be mentioned the Samastha Kerala Sahithya Parishad, the Dakshina Bharat Hindi Prachara Sabha (Kerala Branch), the Kerala Fine Arts Society and the Kerala History Association. Brief accounts of these institutions are given below.

Samastha Kerala Sahithya Parishad

The Samastha Kerala Sahithya Parishad whose head quarters is at Ernakulam is a representative organisation of the writers of Kerala. It has a chequered history running over three decades. Though organised efforts to place Malayalam literature on a firm footing were begun about the last quarter of the 19th century, it was the first All Kerala Literary Conference held at Edappilli in April 1927, with leading literary luminaries like Ulloor S. Parameswara Ayyar, Vallathol Narayana Menon and Rama Varma Appan Tampuran participating in its deliberations, which laid the groundwork for the present Samastha Kerala Sahithya Parishad. The Parishad's main objectives are to foster Malayalam literature through the media of research, criticism and analysis, to collect and preserve ancient manuscripts and to publish valuable books and periodicals of high literary value. The office-bearers of the working committee of the Parishad, i.e., the President, the Vice-President, the Secretary and the Treasurer are annually elected. Apart from its ordinary members the Parishad had 82 life members on its rolls in 1963.

In 1932 the Parishad started the publication of a magazine, the different facets of literature being its theme. The magazine called *Sahithya Parishad* is an important literary periodical. A bi-monthly in Hindi *Arya Kairali* was started in 1957 with a view to popularising the study of the national language among Malayalees. The publication of this periodical has been suspended for the time being. The Parishad also runs a popular library and a press in Ernakulam. The starting of a Co-operative Society called "Sahithya Parishad Sahakarana Sangham" to step up publication of books on a commercial scale and the establishment of a bookstall are some of the other significant achievements of the Sahithya Parishad in recent years.

Dakshina Bharat Hindi Prachara Sabha, Ernakulam

The Dakshina Bharat Hindi Prachara Sabha (Kerala) was established in 1936. It functions as a branch of the Dakshina Bharat Hindi Prachara Sabha, Madras. Its objective is to propagate and develop Hindi throughout the State of Kerala on a systematic basis. Since its inception the Sabha has been engaged in teaching Hindi and coaching up students in Kerala for the examinations conducted by the Dakshina Bharat Hindi Prachara Sabha, Madras. All persons residing in Kerala who have paid a lump sum of Rs. 100 or more are life members of the Sabha while those who pay a subscription of not less than Rs. 10 every year are treated as ordinary members. In 1963 it had 62 life members and 200 ordinary members. The functions of the Sabha are discharged by a *Vyavasthapika Samithi* (Governing Body), a *Karyakarini Samithi* (Executive Committee), and a *Nidhipalak Samithi* (Finance Committee). For purposes of administrative convenience the *Vyavasthapika Samithi* consists of all life members of the Sabha and delegates elected from the various District Mandals. The *Karyakarini Samithi* consists of the President, the Vice-President, the Prabandha Nidhipalak, the Treasurer, the Secretary and not more than ten members chosen by the Vyavasthapika Samithi. Except the Secretary and the Prabandha Nidhipalak all the others are elected from among the members of the Vyavasthapika Samithi in its annual general meeting. The *Nidhipalak Samithi* consists of five members elected by the Vyavasthapika Samithi in its annual general meeting from among its members. The Sabha has properties and assets worth a lakh and a half of Rupees and its annual income comes to about a lakh. It also gets a monthly subsidy of Rs. 250 from the State Government. Among its activities may be mentioned the conduct of Hindi conferences and seminars and Hindi classes for the Pradhamik, Madhyama, Rashtrabhasha and Typewriting and Shorthand Examinations of the Dakshina Bharat Hindi Prachara Sabha, Madras and the staging of Hindi dramas.

Kerala Fine Arts Society, Ernakulam

The Kerala Fine Arts Society, Ernakulam, is another important cultural society functioning in the District. It was founded in November 1956 by the art lovers of Ernakulam with the Maharaja of Cochin as the Patron-in-Chief. Its objectives are the following:— 1. to encourage fine

arts, science of music and other arts like dance, drama, etc. by organising and conducting music concerts, entertainments, conferences, etc., 2. to hold competitions and award prices to winners, 3. to maintain a library and 4. to offer scholarships to deserving students for prosecuting higher studies. In 1961-62 the Society had an income and expenditure of Rs. 29,863.64. The Government of Kerala is giving an annual grant of Rs. 1,500 to the Society. It has also placed at the disposal of the Society a site of 53 cents in area on the Ernakulam foreshore on long term lease for the construction of a Regional Theatre. The plans and the detailed estimates for the Theatre have been prepared and the cost is estimated at Rs. 4 lakhs. It is expected that the Regional Theatre when completed would satisfy the long felt need of Ernakulam town for a proper theatre with essential modern fittings and conveniences and sufficient accommodation for a big audience where foreign tourists who come to the town can be given an idea of the cultural heritage of Kerala.

Kerala History Association

The Kerala History Association, which functions with headquarters at Ernakualm, had its origin in the *Keraleeya Ithihasa Samithi* founded in 1945 by such distinguished scholars and lovers of Kerala History as Komattil Achutha Menon and M. Mukunda Raja. The aims of the Samithi were the promotion and encouragement of the scientific study of the history of Kerala, the compilation of a true and authentic history of Kerala and the imparting of impetus to research work in the field of Kerala History and Culture. Shortly after its formation, it organised an All-Kerala Historical Congress at Trichur which was inaugurated by Sir C. P. Ramaswamy Ayyar, the then Dewan of Travancore. The Association has since been striving its best to render useful service in the cause of the study of History and allied subjects like Archaeology, Anthropology and Archives. Study-tours have been conducted under its auspices on a few occasions. It has also been engaged in efforts to secure for History and allied subjects a fair deal at the hands of both the Government and the public.

The Kerala History Association was registered in May 1965 under the Travancore-Cochin Literary, Scientific and Charitable Societies Registration Act (Act XII of 1955). Its declared objectives are:—(1) To create and foster public

interest for the scientific study of History in general and of the History of Kerala in particular and promote and encourage such interest in the study by organising and holding conventions, conferences, seminars, symposiums, exhibitions, study groups, study tours, lectures, etc., (2) To establish, build up and maintain a research library and museum in a central place in Kerala (3) To afford facilities for and to encourage the carrying on of research work in the field of History and Culture of Kerala, (4) To offer scholarships to the students of History, Anthropology, Archaeology and other allied subjects, and (5) To prepare and edit a true and authentic History of Kerala as early as possible. The affairs of the Association are managed by a Managing Committee consisting of a President, a Vice-President, a Secretary, a Treasurer and 11 other members. A three-day Convention of historians and research scholars was held at Ernakulam in May 1965 under the joint auspices of the Kerala History Association and the University of Kerala in order to arouse public interest in the study of Kerala History. An exhibition of historical, archaeological and archival materials was one of the highlights of the Convention.

KALASAMITHIES

There are a number of *Kalasamithies* or art associations spread all over the District. Brief accounts of some of the most important of them are given here.

Kerala Kalasamithi, Ernakulam

This was set up in 1950 with a view to educating the masses through the medium of dramatic performances. Since its establishment the Samithi has presented more than 20 different types of dramas and staged more than 800 performances in different parts of Kerala and outside. Almost all leading film actors and drama actors, play-wrights, lyric composers and music directors of Kerala and Madras have participated in the dramas staged by the Samithi throughout India.

Sangeetha Kala Nilayam, Palluruthi

Established in 1950 with the object of organising musical performances and teaching dance and drama to children, this institution is managed by the Palluruthi Sangeetha

Sabha. In 1963 there were 49 students undergoing training here. Instruction is given in Vocal Music, Violin and Mridangam. Those who successfully complete the course of training in the Kalanilayam have been appearing for the Music Higher Examinations conducted by the Government of Madras. The institution is getting a grant from the Kerala Sangeetha Nataka Akademi, Trichur.

Lalitha Kala Nilayam, Nettur

Established in 1957 the Lalitha Kala Nilayam, Nettur, has been coaching young men and women in music, dance, drama and other fine arts. It conducts classes in (1) Karnatak music, (2) Indian dance and (3) Instrumental music and has also been giving free tuition to school-going children. It has organised sports activities and taken part in the *Jalolsava* (Boat race) held in the Ernakulam Kayal in connection with the Onam celebrations. The Kala Nilayam has also staged a number of dramatic performances and one-act plays and held variety entertainments like *Ottamthullal*, *Vela Kali*, etc., besides *Gana Melas* and *Bhajanas*. It also took a leading part in the construction of a dispensary and relief settlement. It is an institution registered under the Travancore-Cochin Literary Scientific and Charitable Societies Act 1955 and it is the only organisation of its kind in Vyttila N.E.S. Block getting a grant regularly from the Kerala Sangeetha Nataka Akademi.

Jaibharat Nrithakalayalam, Thrippunithura

This is an important institution established in 1951 with the object of imparting training to young men and women in *Kathakali*, *Bharatanatyam* and other classical dances. It has been coaching 25 students every year. There are two full-time teachers and four part-time teachers working in this institution. The Nrithakalayalam has also been holding dance performances for the benefit of the public. It is getting an annual grant from the Kerala Sangeetha Nataka Akademi, Trichur.

Kamath's Music College, Cochin

Established in 1955, the Kamath's Music College is an institution registered under the Literary, Scientific and Charitable Societies Act (1955). Its objective is to promote the study of classical Karnatak and Hindustani music.

Thirty-two students were studying Vocal Music (Karnatak and Hindusthani) Violin & Mridangam, Harmonium and Classical Dance in this college in 1963. The Kerala Sangeetha Nataka Akademi, Trichur, gives an annual grant to this institution.

Sangeetha Kalalayam, Ernakulam

Established in 1950 this institution has been offering facilities for the study of classical music and dance to the young men and women of Ernakulam. It conducts classes in Vocal Music, Veena, Violin and Mridangam. Dances of Kerala and *Bharatanatyam* are also taught in the dance classes. In 1963 there were 62 students and four teachers in this institution. Some of the students have been appearing successfully for the Lower and Higher Grade Examinations in Music conducted by the Madras Government. About 700 students have so far received training in the Kalalayam. The Kerala Sangeetha Nataka Akademi, Trichur, has been helping the institution with grant.

Sangeetha Kala Niketan, Cochin

Established in 1955 the Sangeetha Kala Niketan, Mattancherri, Cochin, coaches students in Karnatak and Hindusthani music and conducts music festivals. In 1963 there were 20 students undergoing training in the institution. Poor deserving children are given free tuition. The Kerala Sangeetha Nataka Akademi helps the Niketan with an annual grant.

CULTURAL, LITERARY AND SCIENTIFIC PERIODICALS

A few cultural, literary and scientific periodicals are published from this District. The particulars of some such periodicals as furnished in the *Annual Report of the Registrar of Newspapers for India* (1961) are given below:

	Name of periodical	Year of publication	Place of publication	Circulation	Classification
1	*Kerala Law Reporter* (English Weekly)	1959	Ernakulam	937	Law
2	*Kerala Law Times* (Eng. Weekly)	1949	Ernakulam	3469	Law
3	*Viswaroopam* (Mal. Weekly)	1960	Alwaye	2000	Films
4	*Satyadeepam* (Mal. Weekly)	1927	Ernakulam	14,298	Religion and Philosophy

	Name of periodical	Year of publication	Place of publication	Circulation	Classification
5	*Satyanadam* (Bi-lingual Weekly in Malayalam and English)	1876	Ernakulam	N.A.	Religion and philosophy
6	*Planting & Commerce* (Eng. Fortnightly)	1953	,,	1150	Agriculture
7	*Satyaprakasam* (Mal. Fortnightly)	1959	,,	N.A.	Religion and Philosophy
8	*Financial Times* (Bi-lingual Weekly in Eng. & Mal.)	1956	,,	N.A.	Finance and Economics
9	*Coconut Bulletin* (English Monthly)	1947	,,	889	Agriculture
10	*Catholic Family* (Mal. Monthly)	1958	Alwaye	10,683	Religion and Philosophy
11	*Cinema* (Mal. Monthly)	1956	Ernakulam	12,276	Films
12	*Deepti* (Mal. Monthly)	1949	Cochin	N.A.	Films
13	*Little Flower* (Mal. Monthly)	1941	Manjummel	2,352	Religion and Philosophy
14	*Nalikera Bulletin* (Mal. Monthly)	1947	Ernakulam	2,042	Agriculture
15	*Narmada* (Mal. Monthly)	1947	,,	N.A.	Humour and Literary
16	*Patayali* (Mal. Monthly)	1958	,,	N.A.	Literary & Cultural
17	*Sahitya Parishad* (Mal. Monthly)	1932	,,	N.A.	Literary & Cultural
18	*Screen* (Mal. Monthly)	1954	Cochin	N.A.	Films
19	*S. H. League* (Mal. Monthly)	1919	Alwaye	4625	Religion & Philosophy
20	*Al-farooqu* (Bi-lingual Monthly in Arabic and Malayalam)	1951	Perumbavur	N.A.	Religion & Philosophy
21	*Amma* (Bi-lingual Mal. & Eng. Monthly)	1950	Ankamali	6,500	Religion & Philosophy
22	*Ansari* (Mal. & Arabic Monthly)	1960	Perumbavur	465	Religion & Philosophy
23	*Astrological News* (Mal. & Eng. Monthly)	1960	Mattancherri	1,500	Astrology

	Name of periodical	Year of publication	Place of publication	Circulation	Classification
24	*FACT* (Mal. & Eng. Monthly)	1956	Alwaye	N.A.	Commerce & Industry
25	*Film* (Mal. & Eng. Monthly)	1949	Ernakulam	5,312	Film
26	*Ernakulam Missam* (Multilingual Monthly in Eng., Mal., Latin & Syriac)	1921	"	350	Religion & Philosophy
27	*Coir* (Eng. Quarterly)	1956	"	620	Commerce & Industry
28	*Indian Coconut Journal* (Eng. Quarterly)	1947	"	408	Agriculture
29	*Eucharist and Priest* (Latin and Eng. Bi-monthly)	1894	Alwaye	1,680	Religion & Philosophy

LIBRARIES

The Library movement in the District is about a century old. The Ernakulam Public Library was founded on the 1st of January 1870. In view of the high standard of literacy that prevailed in the District a large number of libraries and reading rooms came to be set up all over the area in course of time. The erstwhile Cochin Government took an active interest in the growth of libraries and this too contributed substantially to the progress of the library movement. Almost all the libraries in the District are at present affiliated to the Kerala Grandhasala Sanghom. The following statement gives statistical information about the number of libraries, total book-stock, total number of members etc., in the Ernakulam District for the year 1963-64.

1	No. of Libraries	343
2	No. of books	516,377
3	Value of books	Rs. 11,05,896
4	Members	50,930
5	Annual Income	Rs. 2,04,379
6	Government Grant	Rs. 62,414
7	Other Grants	Rs. 21,069
8	Value of buildings and land	Rs. 7,69,362

Libraries and reading rooms are important and effective agencies of social education. Increasing efforts are therefore being made by the N.E.S. Blocks to strengthen the resources of the existing libraries by giving them grants for purchase

of books, furniture, etc. and for the construction of library buildings. Village libraries have only a limited stock of books. Hence a Distributing Library has been organised in 1962 with headquarters at Ernakulam for the periodical supply of books to rural libraries. This library is attached to the Public Library, Ernakulam and it has its own stock of books. The mobile library van visits all member libraries at least once in a month for taking back books already issued and for issue of fresh books. In 1963 the Distributing Library had 1,800 books. Besides, it also takes books from the Public Library, Ernakulam, for distribution. Membership in the Distributing Library is open to all recognised libraries in the District on payment of a prescribed deposit and monthly subscription. There were 43 village libraries which had taken membership in the Distributing Library in 1963-64. A non-official Managing Committee is supervising the work of the Distributing Library.

Public Library and Reading Room, Ernakulam

As stated earlier, the Public Library and Reading Room, Ernakulam, was founded on the 1st of January 1870. It was formally opened by the then Dewan of Cochin, T. Sankunni Menon. In its early days the library was accommodated in a vacant shed within the premises of the Maharaja's College, Ernakulam. To start with , it had only 300 books and 58 members. It grew in size, year after year, thanks to the generous interest evinced by the Government in its progress. In 1963 it had about 20,000 volumes and the number of members had risen to 300. The management of the Public Library is carried on by a committee elected every year by the subscribers from among themselves. The committee consists of seven members including the President, the Secretary, the Treasurer and four members.

Central Records, Ernakulam

It would be relevant in this context to refer to the Central Records, Ernakulam, which functions as a unit of the State Archives. The institution had its origin in the *Eduvaipu* at Thrippunithura where all the records, both cadjan (*ola*) and paper, of erstwhile Cochin State were originally kept in the custody of a low-paid officer designated *Vicharippukaran*. In 985 K.E. (1810) some of the important paper records were removed from the *Eduvaipu* to

Ernakulam by Col. Munro when the seat of the Raja's Government (*Huzur Cutcherry*) was shifted from Thrippunithura to Ernakulam. In 1061 K.E. (1886) a new building for the *Huzur Cutcherry* was constructed at Ernakulam and the more important of the records were further transferred to Ernakulam from the *Eduvaipu*. It may be mentioned that in the meantime *Ola* (Cadjan) had been fully replaced by paper for all official correspondence in Cochin. This took place in 1032 K.E. (1857). The question of establishing an organised Central Record Office for Cochin was taken up seriously only in 1897 during the period of the Dewanship of Sir P. Rajagopalachari. Although the Government passed final orders in 1901 for the establishment of a Central Record Room at Ernakulam as part of the Cochin Secretariat, the Central Records, Ernakulam, came into existence only in 1910 during the Dewanship of Sir A. R. Banerji. It was under Sir R. K. Shanmughom Chetti who was Dewan from 1935 to 1941 that the present building which houses the Central Records was specially constructed for the purpose. Consequently, the Central Records, Ernakulam, emerged as the main repository of all the records of historical value pertaining to the erstwhile princely State of Cochin.

The records preserved in this institution comprise mainly of two categories, viz., the paper records and the cadjan records including bamboo-split records. The paper records consist mainly of the Bound Volumes of the Dewan's English Diaries (1814 to 1897), Dewan's Malayalam Diaries (994 to 1000 K.E., i. e., 1819-1825), Resident's Letters (1814-1896), Public Office Books (1858-1868), Jamabandy books (1033-1072 K.E., i.e; 1858-1897), Rayasam books (1033-1072 K.E.), i. e., Devaswom books (1033-1072 K.E.), Police books (1033-1072 K.E.) etc. The Survey and Settlement records and the historical records relating to the Portuguese, Dutch and English periods also form part of the valuable paper records preserved here. The bamboo-splits relating to the period 1680-1690 A. D. and the Copper Plates relating to the period 1625-75 are the most conspicuous of the archival collections of this office. There are also more than 10,000 loose cadjan leaves (records) dealing with various aspects of the history of Kerala. The 2,000 cadjan records in bundles known as *Churunas* mostly deal with the lands and land problems of erstwhile Cochin State.

At the time of the integration of the States of Travancore and Cochin in July 1949, the Central Record Office, Ernakulam, was functioning as a Section of the Cochin Secretariat under the administrative control of the Public Department. On December 9, 1964 this institution was merged with the State Archives along with the Central Records at Fort, Trivandrum, the repository of the state records of erstwhile Travancore State and thus it functions now as part of the Kerala State Archives.

Museums, Botanical Gardens, etc.

There are no Museums, Zoos or Botanical Gardens in this District.

CHAPTER XVI

MEDICAL AND PUBLIC HEALTH SERVICES

Early History

Ayurveda was the popular system of medical treatment prevalent in the District long before the introduction of Allopathy. Many Ayurvedic physicians of repute were entertained as palace physicians by the rulers of Cochin and their comforts and welfare properly looked after. It was due to the efforts of Uzhuthara Warrier, a palace physician, that the commentary on the *Ashtanga Samgraha* by Indu, the disciple of Vagbhata, was published. Some of the Maharajas of Cochin were themselves experts in Ayurveda and under their patronage a large number of dispensaries and hospitals offering Ayurvedic treatment sprang up in different parts of erstwhile Cochin State long before the turn of this century. A chair for Ayurveda was set up in 1927 in the Sanskrit College at Thrippunithura. This full course in Ayurveda was taken advantage of even by many women.

The first attempt to introduce the Western system of medical treatment in the District was made by a missionary, Rev. J. Dawson, who opened a Dispensary in Mattancherri in 1818. Unfortunately, his experiment proved to be only a short-lived success. In 1823 the Civil Surgeon of British Cochin was made the *ex-officio* Durbar Physician and a dresser was attached to the jail at Ernakulam. In 1848 Dewan Sankara Warrier opened the first Sirkar Hospital, the Charity Hospital of Ernakulam, which later developed into the General Hospital with all modern amenities. After a lapse of four decades hospitals were opened

at Thrippunithura in 1888 and at Mattancherri in 1890 and dispensaries at Andikkadavu and Njarakkal in 1907 and at Mattancherri in 1909. An asylum for lepers was opened in 1909 in the island of Venduruthi between Ernakulam and Mattancherri with accommodation for about forty inmates.

In the field of Public Health, Sanitary Boards were constituted for the towns of Ernakulam and Mattancherri as early as 1896. A similar Board was set up for Thrippunithura later. The Public Health Department as such came into existence only in 1908.

Vital Statistics

The registration of vital statistics is compulsory throughout the District under the Travancore-Cochin Registration of Births and Deaths Act (Act VIII of 1953) and the Kerala Municipalities Act (1960). The Health Assistants of the Department of Health Services are responsible for the registration of vital events. They are the statutory Registrars of Births and Deaths. The Health Inspectors of the Taluks are the Taluk Registrars and the Assistant District Medical Officers are the District Registrars. The compilation of the statistics is, however, done by the Department of Economics and Statistics. Owing to the ignorance of the people in regard to the relevant enactments and their failure to report births and deaths to the authorities, the registration of vital statistics has been, on the whole, defective and unsatisfactory.

In a study conducted by the Demographic Research Centre, Department of Economics and Statistics, in 1956 it was found that the rate of natality is at its highest in the State during the months of May, June and July. This phenomenon is correlated with the festivities of the Onam in the August-September season which is a time of happiness and enjoyment for the people of Kerala. Similarly, the rate of mortality was found to be higher in the months, of July, August and September. As in the case of births seasons seem to have their effects on deaths. The high mortality is attributed to the extreme heat in April-May and excessive rains during June-July which give rise to a season of diseases. The period coincides with Karkatakam, the lean month for the people of Kerala. A statement

of births, deaths, infant deaths etc., in the District and their rates for 1960 and 1961 is given in Table I.

TABLE I

Births, Deaths, Infant Deaths, etc. and their Rates for the Years 1960 & 1961.

		Births		Deaths		Infant deaths		Still births		Maternal deaths	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Total	**1960**	**38,297**	**21.24**	**9,098**	**5.05**	**1,148**	**29.98**	**444**	**11.46**	**72**	**1.86**
	1961	**44,530**	**23.76**	**10,955**	**5.85**	**1,356**	**30.45**	**51**	..	**5**	..
Rural	1960	27,791	18.66	6,748	4.53	900	32.38	175	6.26	56	2.00
	1961	31,784	20.45	8,259	5.31	1,069	33.63	..	..	..	..
Urban	1960	10,506	33.46	2,350	7.48	248	23.61	269	24.97	16	1.48
	1961	12,746	39.96	2,696	8.45	287	22.52	..	..	..	..

Chief Causes of Mortality

The chief causes of morbidity and mortality in this District can be had from Table II which gives the number of patients treated in the Hospitals and Dispensaries for various diseases and the number of deaths resulting from each disease in 1961-62.

TABLE II

Chief Diseases and Deaths therefrom (1961-62)

Disease	In-patients	Out-patients	No. of deaths
Gastro-Enteritis	1,556	36,798	94
Anaemia Primary & Secondary	4,639	2,09,439	75
Pneumonia	2.154	32,974	54
T.B.	1,446	22,268	44
Dysentery	2,461	1,01,268	31
Typhoid	1,125	3,403	22
Bronchitis	2,386	68,204	19
Diarrhoea	1,215	62,556	17
Pyrexia of Unknown	1,722	82,466	8
Worm infections	734	45,032	3
Scabies	462	64,442	..

It may be seen from the above table that the highest morbidity, both as in-patients and as out-patients, is under Anaemia. This is probably due to the high incidence of hook worm disease and malnutrition. Gastro-enteritis, Dysentery, Typhoid, Diarrhoea and Worm infections are all intestinal infections (water-borne diseases) spread through food and water and the high incidence and mortality are due to (a) Want of protected water supply, (b)

Adulteration of articles of diet, (c) Bacterial contamination of food through carriers who work as food handlers, or through flies, (d) Food poisoning and (e) Lack of environmental sanitation. T. B., Pneumonia and Bronchitis are air-borne diseases, the lungs and air passages being infected by diseased germs carried by air. Their incidence is caused by direct contact with infected persons in overcrowded and ill-ventilated houses, schools and place of public resort. Malnutrition and consequent lowering of vitality and hot and humid atmospheric conditions also help the spread of these diseases. All cases of fever or rise of temperature for which no specific cause can be discovered are put down as cases of Pyrexia. Scabies are skin infections with itch mite which spread through close contact with persons suffering from the diseases. Its spread is due to lack of personal cleanliness, i. e., cleanliness of body and clothing.

Small-pox and Vaccination

More than any other epidemic Small-pox used to make frequent visitations to the District from very early times. During such attacks it would take a heavy toll of lives as it happened in the years 1848, 1861, 1874 and 1893, especially in the Taluks of Cochin and Kanayannur. The spread of Small-pox was matched only by the popular apathy to vaccination and naturally therefore vaccination made tardy progress. But the spread of education over the last few decades has begun to convince people of the efficacy of this sure remedy to ward off this much-dreaded scourge. Coming to relatively recent times, the municipal town of Mattancherri, with its heavy overcrowding and lack of drainage and other basic amenities for healthy living, has always posed a threat to the health of the people elsewhere in the District. In the year 1953-54 there was a virulent outbreak of small pox in this town. 988 attacks and 367 deaths were recorded. Owing to mass vaccination campaign and other precautionary measures carried out by the Health Department the epidemic was prevented from spreading outside the limits of the town. During the same year there were sporadic cases of the disease elsewhere in the District. Despite intensified vaccination drive, the virulence of this disease has not yet died out, if the statistics for the year 1959-60 are any index. During this year there were 828 cases and 273 deaths.

The statistics of the vaccinations conducted by the public health staff of the Department of Health Services in the District for the year 1960-61 are furnished below:—

A No. of Primary Vaccinations conducted

	Total	**86,353**
1	Below 1 year	17,573
2	Between 1 and 6 years	54,241
3	Above 6 years	14,539

B No. of successful Primary Vaccinations verified

	Total	**75,222**
1	Below one year	15,823
2	Between 1 and 6 years	50,676
3	6 and above	8,723
	No. of re-vaccinations	2,11,733
	No. of successful re-vaccinations verified	1,53,841

Tuberculosis

In spite of the decreasing trend in mortality from tuberculosis, the incidence rate remains more or less stationary in rural and urban areas. Out of 23,714 cases of T. B. treated in the medical institutions in the District in 1961-62, 44 proved fatal. There are T. B. clinics at Palluruthi and Moovattupuzha in this District with a bed strength of 32 and 12 respectively. In addition. T. B. Seal Wards, are attached to some of the important medical institutions such as the Government Hospital, Palluruthi, Government Hospital, Alwaye and the Government Dispensary, Ayyampilli. All these T. B. Wards together provide accommodation for about 36 patients.

B. C. G. Vaccination for control of the disease was started in most parts of the District in July 1949 under the joint auspices of the UNICEF, the Central Government and the State Government. In May 1952 a mass vaccination campaign was launched in the Taluks of Parur, Kunnathunad, Cochin and Kanayannur. B. C. G. Vaccination campaign still holds sway in the field of the control of T. B. During the year 1960-61, B. C. G., vaccination was carried out in the Taluks of Alwaye, Perumbavur, Kunnathunad and Kanayannur. Special attention was bestowed on schools, factories and estates during the vaccination campaign. A scheme to provide financial aid to the tune of Rs. 30 per mensem for a period of six months to

tuberculosis patients who have not secured admission to sanatoria or hospitals was introduced by the State Government in 1963.[1]

Plague

Though Plague is not an epidemic common to the District, instances of its outbreak have been recorded in certain years. In 1110 K. E. (1934-35) plague broke out in Mattancherri with seven attacks and five deaths. In Makaram 1110 K.E. (1935) rat falls occurred in Munambam and two cases of plague with one fatal case were reported. The place was declared infected and adequate measures for preventing the spread of the disease were adopted. By Medam 1110 (1935) Munambam was free from plague. Another violent outbreak of plague occurred in 1113 K.E. (1937-38). Prompt measures were taken to combat the disease.

Cholera

Though the epidemiological factors contributory to the outbreak of Cholera do not exist in the District, Cholera has broken out here more than once, e.g., in 1881, 1892-94, 1900, 1906 and 1935. In 1953, 14 cases of attack of Cholera and 9 deaths due to it were reported as having occurred in the Kunnathunad and Thodupuzha Taluks of the District. Chief control measures such as preventive inoculation, administration of sulphaguanidine and Pro-diarrhoea mixture, segregation of patients, chlorination of water resources, disinfection of infected houses and articles, etc. were employed to control the epidemic. The year 1965 also saw the outbreak of Cholera on a large scale in this District as elsewhere in the State. The epidemic took a heavy toll of lives in the months of June and July. The Mattancheri-Fort Cochin area was notified by the Government as Cholera-infected. There where 1,053 cases of attack and 75 cases of death due to Cholera in this District during this outbreak. The Government resorted, among other measures, to a campaign of mass inoculation to control the spread of the epidemic. It is reported that 557,833 persons were inoculated in this District.

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1 The details regarding this scheme are given in the Chapter on "Social Services".

Filariasis Control

The filarial tract of the District is confined to the coastal areas in the west which comprise the western portion of Parur Taluk including Parur town, the entire Cochin Taluk and the western part of Kanayannur Taluk. General mosquito control measures aimed at reducing not only the mosquito nuisance but also the spread of filariasis have been in operation in the Municipal towns in the District for some years. Thus as part of the control measures crude oil was being used to prevent the breeding of mosquitoes in stagnant pools. The Filaria Control Programme came into operation during 1957 and one Filariasis Control Unit was started with headquarters at Ernakulam having jurisdiction over the Ernakulam, Mattancherri and Fort Cochin Municipal towns. Accordingly mosquito control measures were intensified in the above towns by the joint endeavour of both the Municipalities and Health Services Department and field staff was augmented for this purpose. Another activity as part of this programme was mass treatment of people by a drug called Hetrazan with a view to reducing the reservoir of infection among the population. This was carried out in 1958 in Ernakulam with great success. The third activity was spraying of houses with insecticides like B. H. C. once a year in urban areas. The last two activities mentioned above have now been abandoned as routine filaria control measures for various technical reasons and the emphasis is on larval control and minor sanitary engineering with a view to removing permanently the conditions favouring stagnation of water and breeding of mosquitoes. The results of check-up surveys since the inception of National Filaria Control Programme show a diminishing trend in fresh infections.

Anti-Malaria Measures

The malarial regions in the District are confined to th eastern hilly parts, viz., the northern portion of Kunnathu nad Taluk, and eastern portions of Moovattupuzha and Thodupuzha Taluks. The coastal areas are completely free from Malaria and the remaining intermediary tract of the District had only low malarial incidence of varyin degrees. Though the incidence of malaria did not show much variation in endemic areas, there were occasional outbreaks affecting a very large number of people at a time and spreading to adjacent areas in an epidemic form

under climatic conditions favourable for such large scale transmission of the disease. The last epidemic outbreak was during 1947. There was failure of monsoon preceding the epidemic. In former days the only anti-malaria measure taken was to treat the patients with Quinine through the Government medical institutions. During the epidemic some temporary malaria dispensaries were started and special general relief measures were also arranged. With the availability of D. D. T. in sufficient quantities after the Second World War, D. D. T. spraying of all structures, dwelling houses, etc., was taken up in highly malarial areas. This gave a fillip to food production and colonisation in vast areas in the forest regions. Spraying was being done in two rounds once in three months during the period from November to April to cover the entire transmission season which is taken to be from January to June in this State. The National Malaria Control Programme came into force during 1953 and accordingly activities were expanded and all the known malarial areas of high incidence in endemic areas were brought under the control operation. Due to the adoption of control measures for 4 or 5 continuous years malaria was brought to a very low level in those areas. The National Malaria Eradication Programme was launched in 1958. In Ernakulam District most of the areas are under the Hypo-endemic Malaria Unit, Alwaye. The eastern portions of Thodupuzha, Moovattupuzha and Kunnathunad Taluks are under the Trichur Unit, and coastal areas are under the Ampalapuzha Unit. The programme is to be completed in a limited period of time. In this programme not only the known malarial areas, but the entire country is covered on the assumption that all areas are potentially capable for the spread of malaria. It implies the reduction of parasite reservoir in human population to such a negligible degree that once it is achieved, there is no danger of resumption of local transmission. Spraying D. D. T. in all dwelling houses and cattle-sheds consecutively at least for 2 or 3 years is expected to reduce the reservoir to such a low level. The programme also provides for the few residual cases in the community being searched out and their blood cleared of the parasites by radical treatment with new potent anti-malarial drugs. The latter activity is termed as surveillance. For this surveillance workers have been appointed at the rate of 1 for every 10,000 of the population.

They are to visit all houses in their area once a fortnight to enquire about fever cases and to take blood from all non-fever cases and send it for examination in the laboratory at Unit Headquarters. All fever cases are also presumed to be malaria pending confirmation by examination in the laboratory and a single dose presumptive treatment by an anti-malarial drug is given then and there. If, on blood examination, anyone is seen to have malarial parasite, he is traced and radical treatment for 5 days given subsequently. Surveillance was introduced during the third year of spraying under the National Malaria Eradication Programme in the District. It is carried out in all medical institutions, both private and Government. The programme, in a nut-shell is, on the one hand an attack on the vector mosquitoes which transmit the disease from the malaria infected persons to other healthy people and on the other, an attack on the parasites in the body of those who have been already infected with the disease. The data of the surveillance activities carried out under the National Malaria Eradication Programme in 1960 and 1961 is given below:-

A Active Surveillance

Year	Population	Houses visited	Fever cases	Smears collected	Positive for malaria
1961	1,597,357	251,614	51,763	51,763	1

B Passive Surveillance

Year	No. of Institutions	Smears taken	Positive
1961	64	1,526	1

It may be mentioned in this connection that, along with other parts of Kerala, Ernakulam District also withdrew D. D. T. spraying of houses in 1963 ending the consolidation phase of the National Malaria Eradication Programme. The State has entered the maintenance phase of Malaria Eradication from April 1964 and the eradication of the disease is almost complete.

Medical Organisation

The administrative head of the Department of Health Services at the District level is the District Medical Officer of Health, Ernakulam. He is assisted by an Assistant

District Medical Officer of Public Health in the discharge of his duties connected with public health activities. The District Medical Officer of Health is also the Superintendent of the General Hospital, Ernakulam. Major hospitals such as those at Fort Cochin, Palluruthi and Parur, the Women & Children's Hospital, Mattancherri and the Secondary Health Centre, Moovattupuzha, are under the control of Medical Officers in the rank of Civil Surgeon, Grade II. All the other institutions function under Medical Officers in the rank of Assistant Surgeon.

There are eight Hospitals, a Secondary Health Centre, twelve Primary Health Centres, two T. B. Clinics and thirty-one Dispensaries under the Department of Health Services in the District. The Hospitals are:—The General Hospital, Ernakulam, the Women & Children's Hospital, Mattancherri and the Hospitals at Palluruthi, Fort Cochin, Alwaye, Parur, Thodupuzha and Perumbavur. The Secondary Health Centre is situated at Moovattupuzha. The Primary Health Centres are those at Njarakkal, Piravam, Kunbalangi, Ramamangalam, Keezhmad, Kuthattukulam, Kaladi, Varapuzha, Poothotta, Edappilli, Ankamali and Pandappilli. Palluruthi and Moovattupuzha have a T. B. Clinic each. There are Government Dispensaries situated at places like Ayyampilli, Kothamangalam, Thrippunithura, Elengi, Mulanthuruthi, Kumarapuram, Kadayiruppu, Chowara, Puthenvelikkara, Koonammari, Ayirur, Vengur, Nettur, Pothanikkad, Pampakuda, Arakkulam, Moothakunnam, Kondakkadavu, Munambam, Karimannur, Kottapadi, Malippuram, Edavanakkad, Parakkadavu, Punnakkad, Thrikkakara and Arakkunnam and the bi-weekly Dispensaries at Kodanad, Kalamasseri, Kodikulam and Panangad.

There are also Health Inspectors in charge of 8 Health Circles in this District. They are mainly responsible for the prevention of epidemics, sanitation and registration of vital statistics.

HOSPITALS AND DISPENSARIES

Brief accounts of the important medical institutions in the District are given below:-

General Hospital, Ernakulam

The General Hospital is more than a century old, having been established as early as 1848. From small

beginnings as an institution offering charity medical relief, this Hospital, the oldest in the District, has today developed into one of the most well-equipped and modern hospitals in the State. A separate building as an annexe to the General Hospital for the treatment of ophthalmic diseases was constructed in 1096 K.E. (1920-21) and this was opened by Lord Willingdon, the then Viceroy of India, during his visit to the District. An X-ray Department with arrangement for electro-therapeutics was established in 1099 (1923-24). Anti-rabic treatment was introduced in 1098 (1922-23) and the necessary vaccine was obtained from the Pasteur Institute, Coonur.

As stated earlier, the District Medical Officer of Health is the Superintendent of this Hospital. The Hospital staff consists of one Grade I Civil Surgeon, one Grade II Civil Surgeon, sixteen Assistant Surgeons, five Specialists and thirty-one Nurses. The bed strength is 642. A Cancer Ward built out of funds made available by the Cancer Relief Society, Ernakulam, is functioning here since March 1964. Built at a cost of about 1½ lakhs of Rupees it has provision for 40 beds. Special facilities such as Paediatric, Dental, X-ray, Eye, V. D., Radium and E. N. T. Sections and Blood Bank are also provided in the General Hospital, Ernakulam. A School of Nursing is also attached to the Hospital.

Women and Children's Hospital, Mattancherri

This institution was established as early as 1069 K.E. (1893-94) in Mattancherri. A big hospital building with accommodation for maternity cases was provided in 1076 K.E. (1900-01). A Grade II Civil Surgeon is in charge of the Hospital. Four Assistant Surgeons and ten Nurses constitute the other medical personnel. The hospital has accommodation for 102 in-patients. An Auxiliary Nurse-Midwifery School is attached to the institution.

Government Hospital, Palluruthi

This Hospital is under the charge of a Grade II Civil Surgeon. It has on its staff three Assistant Surgeons and sixteen Nurses. The total number of beds is 169. A T. B. Seal Ward is attached to this Hospital. The Hospital is also equipped with a modern X-ray apparatus.

Government Hospital, Fort Cochin

The Fort Cochin Hospital had its small beginnings during the latter half of the 19th century. It functioned as a Municipal Hospital till 1928 when its control was transferred to the Government. Apart from the Grade II Civil Surgeon who is in charge, this Hospital has three Assistant Surgeons and twelve nurses. The bed strength is 125. The air-conditioned Operation Theatre, X-ray Plant and the Blood Bank are the special features of this hospital.

Government Hospital, Alwaye

The Alwaye Hospital has on its staff three Assistant Surgeons and seven Nurses. The bed strength is 94. A Maternity Ward attached to this institution was opened in September 1963. Built at a cost of Rs. 30,000 it provides accommodation for twenty in-patients.

Details such as the names, staff position, bed strength, etc., of the various Government hospitals and dispensaries in the District are furnished in the table given as Appendix to the Chapter.

Cochin Port Hospitals

The Cochin Port Trust runs two Hospitals, viz., the Cochin Port Hospital and the Port Isolation Hospital. Situated near the Cochin Harbour Railway Terminus and the Police Station on the Willingdon Island the former was established in July 1940 to meet the needs of the Port as well as of the Railway employees. The institution which was originally called Port Dispensary was named "Port Dispensary and Emergency Hospital" in February 1942. Though the Railways have made their own arrangements since early 1951 to fulfil the growing demand for medical aid, the Port Hospital with a ward of 8 beds was set up in April 1955 under a separate Medical Department. The bed strength of the Hospital is twenty-six. The medical staff consists of seven Medical Officers, nine Nurses, a Health Visitor, six Compounders (pharmacists), a Laboratory Assistant, a Radiographer and nine Dressers. Part-time services of an Ophthalmologist and Dentist are also enlisted. Besides the laboratory and the X-ray apparatus, a first aid organization is attached to the Medical Department as per rules laid down in the Dock Safety Rules and Factory Act, with 5 first-aid posts, 4 in the wharfs and one in the

Dock and Workshop. During the period [illegible] cases were attended to at the various posts.

Free accommodation is given to the Port employees and their dependents under the Central Government Medical Attendance Rules. During the year 1962-63 a total number of 102,072 out-patients and 402 in-patients were treated in this Hospital.

The Port Isolation Hospital established in 1951 for patients suffering from infectious diseases is situated at the southern end of the Willingdon Island. The medical officers attached to the Port Hospital attend to cases in this hospital also. The number of beds in the institution is four.

PRIVATE HOSPITALS AND NURSING HOMES

The Ernakulam District is noted for a large number of well-equipped private hospitals. Brief accounts of some of the most important among them are given below:—

Lisie Hospital, Ernakulam

A charitable institution under the management of the Archbishop of Ernakulam, the Lisie Hospital is situated near the Municipal Town Hall, Ernakulam. It was opened in July 1956. On the staff of the hospital there are as many as twelve Doctors who are in charge of different sections such as Medical, Surgical, E. N. T., Dental, Ophthalmic, Maternity, Gynaecology and Paediatric sections. The Medical Sisters of St. Joseph and the Nazareth Sisters, numbering 24, constitute the nursing staff. An Auxiliary Nurses and Midwives Training School, started in 1961 is attached to the Hospital and 40 students in two batches are undergoing training in the school. Another training school for general nursing was started in 1963.

The Lisie Hospital is provided with two up-to-date air-conditioned operation theatres, clinical laboratory, and bio-chemistry and bacteriology departments. In addition to the 200 M. A. X-ray apparatus, the Hospital has a mobile X-ray unit. The institution has a bed strength of 250 with 60 in special rooms and 190 in the general wards. In the general wards patients ordinarily need pay only the cost of the medicines and food given to them. Poor

patients and children in the general wards are treated free. On Tuesday, Wednesday and Friday the institution conducts free out-patient clinics and an average of 400 patients attend the clinics on those days when medicines and treatment are given free. In 1962 the Lisie Hospital treated daily on an average 300 patients in the out-patient department and 175 patients in the in-patient department.

Little Flower Hospital, Ankamali

The Little Flower Hospital at Ankamali was started by the Archbishop of Ernakulam in 1936 and its Silver Jubilee was celebrated in 1961. The Hospital has on its staff four Doctors, twelve Nurses, a Compounder, a Pathologist and an X-ray technician. The institution is provided with a Maternity Ward, an Out-patient Ward, a Surgical Ward, a Dental Clinic and two Operation Theatres (one of which is air-conditioned). An X-ray Plant was installed here in 1957 and a Nursing School was opened in 1962. Among the annexes to the Hospital are three Doctor's Bungalows, the Nurses' Quarters and a Pay Ward of seven rooms. There are 100 beds distributed in the Surgical, Maternity and General Wards. Expectant mothers are examined and given medical advice at the ante-natal clinic.

St. Joseph's Hospital, Manjummel

Situated as it is in Manjummel, Udyogamandal, near Alwaye, the St. Joseph's Hospital serves a fast developing industrial area. It is a palatial two-storied and well ventilated building located in an important locality. The St. Joseph's Hospital has a chequered history. One of the earliest institutions of its kind to be founded in Kerala, it was inaugurated on 19th March 1888 by Mr. F. C. Hannyngton, the then British Resident in Travancore and Cochin. An institution born out of unflagging Christian Missionary zeal and philanthropy, it received grant-in-aid from the State Government from 1926 till April 1960. On the medical staff of the hospital are two Doctors, eight Nurses, a Midwife, two Compounders, an X-ray technician and a Laboratory technician. The total bed strength is 62 of which 12 beds are reserved for maternity cases, 10 for children and the rest for general cases. During the year 1962, 19,679 out-patients and 2,985 in-patients were treated in this hospital.

Dr. Kunhalu's Nursing Home, Ernakulam

This Nursing Home founded by and named after the late Dr. A. K. Kunhalu, is situated on the T. D. Road about two furlongs from the Ernakulam State Transport Bus terminus. It started as a small dispensary in 1918. The medical staff conists of two qualified Doctors, a part-time Diabetic Specialist, three Nurses, three Compounders, a Radiographer and a part-time Laboratory Technician. The bed strength of the Nursing Home is eighteen. A well-equipped laboratory and a powerful X-ray unit with facilities for fluoroscopy, ultra-violet and infra red ray therapy are available in the institution.

V. K. Bava Memorial Hospital, Ernakulam

Located in the heart of Ernakulam town on the Muslim street just near the Ernakulam Market, this hospital was established in 1954 in memory of the late V. K. Bava. It has a staff of twenty-five which includes three Doctors, six Nurses and Midwives and two Compounders. There are Specialists in Orthopaedics and Surgery, Ophthalmology and treatment for Ear, Nose and Throat. The total bed strength of the hospital is forty. The hospital has a special pay ward. A well-equipped and up-to-date operation theatre with the necessary surgical instruments and anaesthesia apparatus, a special maternity theatre for treatment of maternity and gynaecological cases, an X-ray plant and an electrocardiograph are some of the special facilities provided here. The fully equipped clinical laboratory attached to the hospital conducts all routine examination of blood, urine, faeces, etc., and bacteriological examinations including Kahu and Widal tests. This laboratory thus meets the needs of an expanding circle of patients and medical practitioners. Other facilities are the check-up clinic and the canteen. A noteworthy feature of this hospital is that any doctor from outside is welcome to treat his own patient here. All facilities in the hospital would be placed at his disposal for such treatment. So also any in-patient is at liberty to consult any doctor outside the hospital, if he so desires. In 1962 the hospital offered treatment to 983 in-patients and about 2000 out-patients.

Mar Augustine Jubilee Memorial Hospital, Edappilli

The Mar Augustine Jubilee Memorial Hospital which is situated in Edappilli North Pakuthi and is under the

management of the Vicar of the Forane Church, Edappilli, was started in 1946 as a small dispensary with one Doctor and one Compounder. The hospital has now on its staff one Doctor, eight Nurses, two Compounders and a Technician. It provides accommodation for twenty-eight in-patients. A general ward with provision for ten beds and a maternity ward with provision for sixteen beds are under construction. Attached to the hospital there is a clinical laboratory under a trained technician. In 1962 about 1017 in-patients and 24,897 out-patients were treated in the hospital.

Lourdes Hospital, Ernakulam

The Lourdes Hospital , Ernakulam, opened in August 1965, represents the fulfilment of a long cherished dream of the Archbishop of Verapoly, His Grace Dr. Joseph Attipettti, to provide medical aid to the people living in the northern part of Ernakulam town and its suburbs including several long-neglected islands. The hospital has been planned as a 200-bed institution with all modern equipments and facilities. The main block completed in August 1965 as the first phase of the project accommodates 60 beds besides Clinical and Pharmaceutical departments, X-ray and Laboratory. It has been constructed on a three and half acre plot at Chathiath. A special feature of the hospital is that it is staffed by a team of foreign trained doctors and nurses. Its day-to-day administration is in the hands of the Italian Sisters of Charity who were in charge of the nursing section of the Government Hospital, Ernakulam, for several years. It may be mentioned in this connection that the first batch of these Sisters came to Cochin four decades ago from Milan (Italy) on a special invitation extended to them by the then Maharaja of Cochin through the Archbishop of Verapoly. The Lourdes Hospital utilises the services of these Sisters who have since retired from Government service.

Lala Hospital, Cochin

The Lala Hospital is situated opposite to the Central Warehouse near the Government Hospital, Palluruthi. It was started as a dispensary about 13 years ago. It has an accommodation for 13 in-patients. The medical staff of the hospital consists of a Doctor, two Nurses and two Compounders.

Vettath Nursing Home, Ernakulam

The Vettath Nursing Home is situated in that part of the Warriam Road which lies between the Mahatma Gandhi Road and Chittur Road. Started in 1950 this institution has one Doctor, one Nurse and one Compounder. The Nursing Home provides accommodation for eight in-patients. About 3000 patients were treated here in 1962.

St. Joseph's Dispensary & Nursing Home, Thodupuzha

The medical personnel in the St. Joseph's Dispensary & Nursing Home at Thodupuzha is composed of a Doctor, two Compounders and two Nurses. The total bed strength here is 18.

INDIGENOUS HOSPITALS AND DISPENSARIES

The Department of Indigenous Medicine maintains a net-work of Ayurveda Hospitals and Dispensaries in the District. There are seven Hospitals and 24 Dispensaries. The Hospitals are located at Ernakulam, Pallippuram, Thodupuzha, Perumbavur, Chennamangalam, Thrippunithura and Mattancherri. There are separate Visha Wards attached to the Hospitals at Thrippunithura and Perumbavur where poison cases are treated. In the Hospital at Mattancherri there is a Pay Ward where in-patients are admitted on payment of rent. In the Hospitals both in-patients and out-patients are treated.

The Ayurveda Dispensaries are located at the following centres, viz., Arakunnam, Amballur, Kumbalam, Cheranellur (Kanayannur) Kadamakudi, Edavanakkad, Nayarambalam, Elangunnapuzha, Palluruthi, Cheranellur (Kunnathunad), Malayattur, Udumbannur, Vazhithala Kallur, Veliyathunad, Parur, Alwaye, Poothrika, Sreemoolanagaram, Thrikkakkara, Cheruvattur, Mannathur, Moovattupuzha and Karur. Only out-patients are treated in the Dispensaries. In addition to the Hospitals and Dispensaries there are Grant-in-Aid Vaidyasalas at the following centres, viz., Parur, Vadakkekkara, Ayrur, Varapuzha, Kottuvalli, Kaladi, Perumbavur, Rayamangalam Peppathippara, Thrippunithura, Mulanthuruthi, Painagapilli, Kanjiramattom, Udayathumvathil, Nadama, Thiruvankulam, Ernakulam, Edappilli, Kottappuram and Kanjur.

Among the Ayurvedic institutions run by private agencies in the District, the Dhanwanthari Vaidyasala, Thodupuzha and Ayurvedic Mental Nursing Home, Ernakulam, deserve special mention.

Dhanwanthari Vaidyasala, Thodupuzha

This institution was established in April 1933. It has its head office at Thodupuzha and 49 branches in all. About a hundred persons arc employed in the Head Office in connection with the work of the Vaidyasala.

Ayurvedic Mental Nursing Home, Ernakulam

This is one of the model institutions in the State where mental patients are hospitalised and treated according to to the Ayurvedic system. The Nursing Home which is located on the South Railway Station Road, Ernakulam, was set up in 1951. It has got its own building with a complement of 10 beds. Both the *Sodhana* and *Samana* treatments of Ayurveda are administered to the patients, but special importance is given to *Sodhana* or special *Panchakarma* modes of treatment. Ample facilities are therefore provided in the Nursing Home for *Dhara*, *Sirovasti* etc. In 1962 about 300 patients were treated here. Free treatment is given to poor deserving patients. Donations are also given to charitable purposes from the fund of the Nursing Home.

Homoeopathy

An important institution in the field of Homoeopathy in the District is the Royal College of Homoeopathic Physicians, Market Road, Ernakulam. This institution founded by Dr. S. K. Padiar, a Veteran Homoeopath, has been in existence for over 40 years. It imparts a four year course in Homoeopathy. A Dispensary and a Nursing Home are also attached to this institution.

Indian Medical Association

The Cochin Branch of the Indian Medical Association located at Ernakulam is an important organisation of the medical practitioners of the District. The Association convenes meetings once in a month and some eminent specialists would be invited to deliver speeches on subjects of interest to the members of the profession. Any person possessing medical qualifications as defined in the Indian Medical Degrees Act 1916 and duly registered under the

Indian Medical Act is eligible for membership. The main object of the Association is to promote and advance medical and allied sciences in all their different branches and to uphold the honour and dignity of the medical profession. In 1963 there were 70 members in the Association.

Maternity and Child Health

A Taluk-wise statement of the distribution of Maternity and Child Health Centres maintained by the Government in the District is given below:—

	Taluk	Midwifery Centres	Sub-Centres of Health Centres	M.C.H. Centres opened under the Second Plan	Total
1	Kunnathunad	3	4	1	8
2	Alwaye	..	7	1	8
3	Parur	3	4	..	7
4	Kanayannur	4	11	1	16
5	Cochin	3	7	2	12
6	Moovattupuzha	6	10	1	17
7	Thodupuzha	5	Nil	4	9

Besides, there are two M.C.H. centres in Ernakulam North and South run by the Ernakulam Municipality. The Y.W.C.A., Ernakulam, runs its own M.C.H. centre. Moreover, there are 6 M.C.H. centres under the Social Welfare Board, and one under the Kasturba Gandhi Memorial Trust.

Family Planning

The agency for the popularisation and implementation of family planning techniques is the Family Planning Clinic staffed by two Family Planning Social Workers, a Health Visitor and a part-time Medical Officer. Under the Department of Health Services there are a number of such clinics attached to such institutions as the General Hospital, Ernakulam, the Government Hospitals at Fort Cochin, Alwaye, Parur and Thodupuzha, the Women and Children's Hospital at Mattancherri, the Government Dispensaries at Njarakkal, Pampakuda, Kothamangalam, Ayyampilli, and Pothanikkad, the Secondary Health Centre at Moovattupuzha, the Primary Health Centres at Kuthattukulam, Kaladi and Ramamangalam and the Maternity and Child Health Centre at Thrippunithura. Among the Private Hospitals in the District, the Chidambaram Chettiar Memorial Hospital, Rayonpuram, Perumbavur, has got its own clinic. The Social Workers and Health Visitors of the clinics make

regular house visits in the area and talk to groups and individuals about the need for planned parenthood. Persons who are in need of help and guidance are advised to visit the clinic. The Medical Officer in charge of the clinic examines the patients and explains the methods for limiting the size of the family and as an interim measure for spacing the use of contraceptives is suggested. Contraceptives are purchased from approved firms and supplied at subsidised rates to the people of various income groups through the Family Planning Clinics.

Parents who have more than three children and do not require any more are advised by doctors to undergo sterilisation operation. A benefit allowance of Rs. 17 each for men and Rs. 19 each for women is given, irrespective of the fact whether the individual undergoing the operation is a Government servant or not. In addition, 5 days extra casual leave is granted to the males and 10 days to the females employed in Government service. But, officers whose monthly income is Rs. 200 or above, are not entitled to the benefit allowance. The institutions where sterilisation operation is conducted are the General Hospital, Ernakulam, Government Hospitals at Fort Cochin, Palluruthi and Parur, Women and Children's Hospital Mattancherri, Government Dispensaries at Njarakkal and Ayyampilli, the Secondary Health Centre, Moovattupuzha and the M.C.H. Centre at Thrippunithura. It may also be mentioned here that with effect from 1965 the Government have started an active campaign for the popularisation of the Intra Uterine Contraceptive Device (I.U.C.D.) among women as a method of family planning.

Public Health Laboratories and Research Centres

There are two Laboratories in Ernakulam District, viz., the Public Health Laboratory, Ernakulam and the Clinical Laboratory attached to the District Hospital, Ernakulam. The former is a full-fledged laboratory for carrying out clinical diagnostic tests (Haematological, Biochemical and Bacteriological) and was opened on January 1, 1962 in the heart of Ernakulam town. It has on its staff 11 members including a Medical Officer and two Research Officers. The Clinical Laboratory attached to the District Hospital, Ernakulam, undertakes all types of clinical and microscopical work of blood and discharges and excretions from the human body. Bio-chemical work,

especially of blood, like estimation of sugar, urea, calcium etc., is undertaken. The Laboratory has six members on its staff including a Laboratory Specialist and three Technicians.

Slum Clearance

Under the Second Five Year Plan 56 tenements were constructed in the Eruveli area in Fort Cochin and allotted to erstwhile slum families for occupation at a fixed rent of 12 Rupees per mensem for each single tenement. Under the Third Five Year Plan the Government have made an allotment of Rupees one lakh to the Fort Cochin Municipality for taking up slum clearance schemes. The Municipal Council proposes to take up the construction of 31 tenements in Block I in Ward No. VII which is the worst slum area in the town.

WATER SUPPLY SCHEMES

Ernakulam-Chowara Water Works

The Ernakulam-Chowara Water Works was started on a small-scale in 1914, with the idea of supplying about two lakhs gallons of drinking water a day to the town of Ernakulam, which had then a population of less than 20,000. It has since grown in size and today it supplies more than 38 lakhs gallons of water a day to a population of nearly four lakhs. The Water Works has grown in stages. Its capacity was increased in the course of years by putting up additional units to cope with the increased demand. With the extension of the supply lines to the neighbouring areas consequent upon the development of the Port of Cochin and the establishment of the Naval Base at Cochin, the demand for water increased still further. At present the scheme caters to the needs of the Municipalities of Ernakulam, Mattancherri, Fort Cochin and Alwaye, the Port of Cochin, the Naval Base, the Railways and the Coastal villages of Chellanam, Cheriakadavu and the Islands of Vaipin, Panambukad and Mulavukad.

The Water Works has two treatment plants, one at Chowara on the northern bank of the Periyar river and the other at Alwaye on the southern bank of the Periyar. A quantity of 34 lakhs gallons of water is pumped daily from Chowara and about 4,00,000 gallons from Alwaye. To start with, the Chowara plant had only two filters and one single 12" pumping main starting from Chowara and

covering the entire distance of 15 miles to Ernakulam. As the demand for water increased additional filters were installed in stages and another 12" line laid. The Head-works at Alwaye was the property of the Defence Department. In 1940 this along with its two 6" lines to Ernakulam was handed over to the State Government. Thenceforth the supply of water to the Defence Establishments was taken over by the State Government.

Water is pumped to Mattancherri and Fort Cochin and to the Port and Naval Base from the storage tank at Perumanur. There are separate pumping mains for Mattancherri, the Port and the Naval Base. A separate 12" submarine-cum-land main carries water to the littoral tracts of Mulavukad, Panambukad and Vaipin. The following are the details of water supplied to each area:—

Ernakulam Town	19.00	lakhs gallons/day	
Mattancherri	6.50	"	"
Fort Cochin	1.50	"	"
Cochin Port	4.50	"	"
Navy	4.00	"	"
Chellanam	1.30	"	"
Vaipin Island	1.50	"	"

As Ernakulam and neighbouring areas covered by this Water Works have developed into an industrial belt, the demand for water has increased considerably in recent years. It is not considered economical to expand the existing scheme to cater to the increased demand. Therefore, a new comprehensive scheme for water supply to Ernakulam, Mattancherri, Fort Cochin, Port, Navy, Alwaye etc. has been planned and the same is in progress. There is a separate Public Health Division for this new scheme at Alwaye.

Ernakulam-Mattancherri Water Supply Scheme

Under this scheme it is proposed to supply 16 m.g.d. to the Municipal towns of Ernakulam, Mattancherri, and Fort Cochin and also the Port and Naval Base. Work on the scheme which commenced in 1959 is being taken up in two stages, the first stage to supply 10.7 m.g.d. which will be later on augmented to 16 m.g.d. When completed the scheme will cater at the rate of 20 gallons per head per day to the anticipated population in 1991. The estimated cost of the scheme is Rs. 353 lakhs. The main components of the scheme are the Headworks at Alwaye, the pumping

main to lead the water to Ernakulam, Mattancherri and Fort Cochin and improvements to the existing distribution systems at Ernakulam, Mattancherri and Fort Cochin by providing additional Zonal Reservoirs and relaying the distribution pipes. A jeepable road is also to be laid from Alwaye to Ernakulam for laying the pumping main and facilitating maintenance at a later date. The Headworks consists of the raw water intake located on the Alwaye river and a modern Filtration Plant, Chemical House, Clarifiers, etc.

Perumbavur Water Supply Scheme

This scheme contemplates the supply of safe drinking water to the Municipal town of Perumbavur and is estimated to cost Rs. 7 lakhs. The work is in progress. It is expected that the scheme can be commissioned during the Third Five Year Plan period.

Rural Water Supply Schemes

Rural Water Supply Schemes were taken up in the following villages during the Second and Third Five Year Plan periods

1	Kuthattukulam	6	Kavalangad
2	Mulanthuruthi	7	Vazhakulam
3	Maradu	8	Kizhakkambalam
4	Chennur	9	Poothotta
5	Muttom		

The following Rural Water Supply Schemes will also be taken up during the Third Five Year Plan period:—
1. Puthencruz, 2. Kuruppampadi, 3. Ankamali, 4. Pallikkara, 5. Pambakuda, 6. Piravam, 7. Varapuzha, 8. Pothanikkad, 9. Thodupuzha 10. Kaladi, 11. Kadamakkudi, 12. Kumbalam, 13. Panangad, 14. Moothakunnam.

Besides the above piped water supply schemes, about 360 open draw wells have been constructed in the various Panchayats of the District under the Local Development Scheme. A large number of wells are still to be constructed.

Drainage Schemes

The Ernakulam-Mattancherri Drainage Scheme is the only scheme of its kind in the District and it is in the process of execution. The scheme is estimated to cost Rs. 171 lakhs. Due to the more or less level nature of the

surface, the high water table and treacherous nature of the sub soil the implementation of the scheme presents difficult problems. The sewage treatment plant for the disposal of the sewage from the town has been completed. The sewage and sullage from the individual houses in the town are proposed to be collected and pumped to this plant constructed at nearby Elamkulam by means of a number of pumping and lifting stations. The sewage will be treated here by activated sludge process. This is the first plant in India where sewage is treated in this method.

As the sewer lines have not been laid in the town the nightsoil collected from the houses is taken to this plant in lorries and the same is disposed there. The sludge obtained when the nightsoil is treated in the plant is of high manurial value and so it is dried and sold to the public as fertiliser.

Water Supply and Sewerage Project, Greater Cochin Area

Mention may be made in this connection of the Water Supply and Sewerage Project proposed for the "Greater Cochin Area". An area of 425 square miles comprising the six Municipalities of Ernakulam, Mattancherri, Fort Cochin, Parur, Alwaye and Perumbavur besides the Cochin Port and Naval Base areas and 56 Panchayats is to be developed under the auspices of the proposed Cochin Development Authority for a comprehensive Water Supply and Sewerage Programme with assistance from the World Bank and other bilateral and international agencies.

According to the Census of 1961 and as per the population forecast made by the Department of Economics and Statistics, it is predicted that the present population of about 12.62 lakhs living in this area would reach the figure of 32.68 lakhs in 2001 A.D. On a rough analysis as could be judged from the information gathered from the various existing industries and those to be commissioned in the near future as also from the habits of the population, the chances of migration from the saturated areas of Ernakulam, Mattancherri and Cochin into the various peripheral belts around the existing and prospective industrial areas, it is calculated that the ultimate demand of domestic water for this area would be about 150 m.g.d. It may be stated that this does not include

the demand of the industries in the area which in many cases is met by them directly from the rivers. The quantity of domestic water thus required cannot possibly be found from the flows that are at present available during the summer months either in the Moovattupuzha river or Periyar river or both. The sources of supply as at present considered feasible, i.e., with the commissioning of the Idikki and Idamala Hydel Projects are as follows:—

	1st phase	2nd phase
	(Quantity in m.g.d.)	
Total	**90**	**150**
Source I at Kaladi on the Periyar River	10	25
Source II at Thottumukam on the Periyar River	15	20
Source III near Eloor on the F.A.C.T. branch of the Periyar	20	30
Source IV at Chemmanad in the Chithrapuzha basin (water to be diverted from Moovattupuzha river)	45	75

The funds for the above project are proposed to be obtained mainly from the World Bank and other international and bilateral agencies, through the Government of India, as loan. As a condition precedent to securing such loans, steps are to be taken for the setting up of a Water Supply and Sewerage Authority for the Greater Cochin Area. This Authority is to take over the entire functions of Water Supply and Sewerage for the whole area and will be a statutory organisation, autonomous, self-sufficient and high powered.

The total estimated cost for this Water Supply and Sewerage Project to meet the demand of the population as predicted for 2001 A.D. will be about Rs. 45 crores i.e., Rs. 30 crores for the First Phase and Rs. 15 crores for the Second Phase. Out of this Rs. 29 crores will be roughly for Water Supply and Rs. 16 crores for Sewerage. This estimate does not, however, take into consideration the internal branch and sub-branch sewers and water mains which are to be laid in the industrial colonies and similar areas of a semi-urban nature. The above figures are worked out on an average per capita cost of Rs. 85/90 for water supply and Rs. 45/50 for Sewerage. A preliminary Engineering report incorporating the essential Engineering details is under preparation by a Special Investigation Division staffed with Engineers specifically sanctioned for the purpose.

APPENDIX

Hospitals, Dispensaries etc., with details of Staff, Bed Strength etc. (1961-62)

	Institutions	Doctors: Civil Surgeon Gr. I	Civil Surgeons Gr. II	Asst. Surgeons	Specialists	Nurses	Bed Strength	Special facilities provided
1	General Hospital, Ernakulam	1	1	16	5	31	642	Paediatric, Dental, X-ray, Eye, V.D. Radium, E.N.T. and Blood Bank
2	Govt. Hospital, Palluruthi	..	1	3	..	16	169	T.B. Seal-Ward & X-ray.
3	„ Cochin	..	1	3	..	12	125	X-ray and Blood Bank
4	„ Parur	..	1	1	..	9	96	..
5	„ Alwaye	..	..	3	..	7	94	..
6	Women & Children's Hospital, Mattancherri	..	1	4	..	10	102	..
7	Secondary Health Centre, Moovattupuzha	..	1	1	..	9	84	..
8	M.C.H. Centre, Thrippunithura	..	..	2	..	3	36	..
9	Govt. Hospital, Thodupuzha	..	..	2	..	3	36	..
10	„ Perumbavur	..	..	1	..	2	30	..
11	T.B. Clinic, Palluruthi	..	..	1	..	3	32	..
12	„ Moovattupuzha	..	..	1	..	2	12	..
13	P.H. Unit, Njarakkal	..	..	2	..	4	31	..
14	„ Piravam	..	..	1	..	1	6	..
15	„ Kumbalangi	..	..	1	..	1	16	..
16	„ Ramamangalam	..	..	1	..	..	16	..
17	„ Keezhmad	..	..	1	..	..	..	..
18	„ Kuthattukulam	..	..	1	..	1	16	..
19	„ Kaladi	..	..	1	..	..	4	..
20	„ Varapuzha	..	..	1	..	..	..	..
21	„ Poothotta	..	..	1	..	1	10	..
22	P.H. Centre, Edappilli	..	..	1	..	1	14	..
23	„ Ankamali	..	..	1	..	1	14	..
24	„ Pandapilli	..	..	1	..	..	..	..
25	Govt. Dispensary, Ayyampilli	..	..	2	..	3	28	T.B. Seal Ward
26	„ Kothamangalam	..	..	2	..	2	44	..
27	R.V. Palace Dispensary, Thrippunithura	..	..	1	..	..	..	..

APPENDIX

Hospitals, Dispensaries etc. with details of Staff, Bed Strength etc. (1961—62)—*Concld.*

	Institutions		Doctors						
			Civil Surgeon Gr. I	Civil Surgeon Gr. II	Asst. Surgeons	Specialists	Nurses	Bed Strength	Special facilities provided
28	Govt. Dispensary, Elengi		..	..	1	..	..	4	..
29	,,	Mulanthuruthi	..	..	1	..	2	20	..
30	,,	Kumarapuram	..	..	1	..	..	4	..
31	,,	Kadayiruppu	..	..	1	..	1	4	..
32	,,	Chowara	..	..	1	..	1	8	..
33	,,	Puthenvelikkara	..	..	1	..	..	4	..
34	,,	Koonammavu	..	..	1	..	1	12	..
35	,,	Ayirur	..	..	1	..	..	3	..
36	,,	Vengur	..	..	1	..	..	..	..
37	,,	Nettur	..	..	1	..	..	..	..
38	,,	Pothanikkad	..	..	1	..	..	20	..
39	,,	Pampakuda	..	..	1	..	..	4	..
40	,,	Arakkulam	..	..	1	..	..	4	..
41	,,	Moothakunnam	..	..	1	..	1	20	..
42	,,	Kondakkadavu	..	..	1	..	..	..	..
43	,,	Munambam	..	..	1	..	..	..	..
44	,,	Karimannur	..	..	1	..	..	4	..
45	,,	Kottappadi	..	..	1	..	..	4	..
46	,,	Malipuram	..	..	1	..	..	..	..
47	,,	Edavanakkad	..	..	1	.	..	4	..
48	,,	Parakkadavu	..	..	1	..	..	4	..
49	,,	Punnakkad	..	..	1	..	..	..	..
50	,,	Thrikkakkara	..	..	1	..	..	..	..
51	,,	Arakunnam	..	..	1	..	..	..	..
52	Govt. Bi-Weekly	Dispensary, Kodikulam	..	..	1	..	..	..	..
53	,,	Panangad	..	..	1	..	..	..	..
54	,,	Dispensary, Kodanad	..	..	1	..	..	..	..
55	,,	Kalamasseri	..	..	1	..	..	..	..

CHAPTER XVII

OTHER SOCIAL SERVICES

Labour Welfare

The Department of Labour and Inspectorate of Factories and Boilers attend to the activities connected with the welfare of industrial labour. The District Labour Officer, Alwaye, is the head of the Labour Department at the District level. Below him are the following officers:—(1) Deputy Labour Officer, Cochin, (2) Assistant Labour Officer, Alwaye, (3) Assistant Labour Officer, Ernakulam, (4) Assistant Labour Officer, Cochin, (5) Assistant Labour Officer, Parur, (6) Assistant Labour Officer, Thodupuzha, (7) Inspector of Shops and Establishments, Ernakulam. Each of the Assistant Labour Officers is assisted by Labour Welfare Assistants. There are three Welfare Assistants each under the Assistant Labour Officers, Alwaye, Ernakulam and Cochin and two each under those of Parur and Thodupuzha.

The District Labour Officer and Deputy Labour Officer are Conciliation Officers with statutory duties and powers under the Industrial Disputes Act. They initiate formal conciliation proceedings in respect of the industrial disputes arising within their jurisdiction. They also supervise and control the work of the Assistant Labour Officers. The Assistant Labour Officers have no statutory powers for carrying out conciliation work, but they help the District Labour Officer and Deputy Labour Officer to investigate the disputes. Their main function is the enforcement of the various labour laws by carrying out inspections of establishments and launching prosecutions wherever necessary. The Inspector of Shops and Establishments, Ernakulam, is charged with the duty of enforcing the provisions of the Shops and Establishments Act in Ernakulam and Thrippunithura. The Welfare Assistants are Field Assistants who assist the Labour Officers to enquire into the facts of industrial disputes and also to collect various statistical data relating to

enforcement of labour laws. An idea of the extent of the work done by the Department of Labour in the District during the period 1958-61 can be had from the following statistical data relating to the number of disputes settled, inspections made and prosecutions launched during the period 1959-61.

Particulars of the work done by the Labour Department 1959—61

	1958-59	1959-60	1960-61
No. of disputes settled	468	561	443
No. of Inspections made under:—			
i Shops & Establishments Act (1950)	2,612	2,937	2,456
ii Minimum Wages Act (1948)	637	1,048	1,089
iii Maternity Benefit Act (1957)	133	49	—
iv Employment of Children Act (1938)	70	52	38
v Plantations Labour Act (1951)	—	—	—
vi National and Festival Holidays Act (1958)	35	30	88
No. of Prosecutions launched	3 under Shops and Ests. Act	3 under Shops & Ests. Act and 3 under Industrial Disputes Act	1 under Shops & Ests. Act

The Inspectorate of Factories and Boilers which was separated from the Labour Department and constituted into a separate department with effect from August 1961 has its own offices functioning in the District. They are the following:—(1) Office of the Inspector of Factories, Alwaye, (2) Office of the Additional Inspector of Factories, Alwaye, (3) Office of the Inspectress of Factories for Womens Welfare, Alwaye, (4) Office of the Inspector of Boilers, Alwaye. The Inspector of Factories enforces the provisions of the Factories Act and Payment of Wages Act in respect of Section 2 (M) Factories, and the Additional Inspector of Factories the provisions of the Factories Act and Payment of Wages Act relating to Section 85 Factories. The Inspectress of Factories for Women's Welfare enforces the provisions of the Maternity Benefit Act, (1957) and the welfare provisions relating to women workers in factories while the Inspector of Boilers enforces the provisions of the Indian Boilers Act, (1923).

Employees, Provident Fund

Some of the important steps taken by the Government for safeguarding the interests of labour and promoting their welfare have already been dealt with in the section on "Labour Welfare" in Chapter V. Only certain other measures not covered in the earlier section are dealt with here. The Employees Provident Fund Scheme is in operation in this District. 133 establishments with an employment strength of 19,944 labourers had been brought under the coverage of the Employees Provident Fund Act (1952) in this District in March 1964. Of these about 17,246 employees were contributing to the Employees Provident Fund. The following is an Industry-wise distribution of establishments, employees and subscribers.

Industry-wise distribution of Establishments, Employees and Subscribers under the coverage of the Employees' Provident Fund Scheme as on March 31, 1964

	Industry	No. of establishments	No. of employees	No. of Subscribers
	Total	**133**	**19,944**	**17,246**
1	Textile	5	3,521	3,008
2	Road Motor Transports	7	163	162
3	Electrical Mechanical & General Engineering	15	2,305	2,158
4	Edible Oils and Fats	5	1,356	1,270
5	Heavy & Fine Chemicals	9	4,809	3,911
6	Printing	7	447	371
7	Tiles	14	1,339	1,221
8	Cardamom Plantations	1	21	17
9	Mixed Plantations	1	156	143
10	Rubber Plantations	14	1,458	1,138
11	Electricity	2	100	100
12	Automobile Repair & Servicing	3	88	75
13	Hotels & Restaurants	8	237	183
14	Cinema	2	57	56
15	Glass	1	446	388
16	Trading & Commercial Establishments	24	2,205	2,030
17	Cashewnut Industry	4	509	453
18	Saw Mills	4	196	158
19	Wood Industry	4	166	156
20	Voluntary—Section 1(4) of the E.P.F. Act, 1952	3	365	168

The number of industrial labourers not covered by the Employees' Provident Fund Scheme in the Ernakulam District as per a rough estimate is 13,000.

Employees' State Insurance Scheme

The Employees' State Insurance scheme was implemented in the Ernakulam District in 1956. Under the Employees' State Insurance Act, (1948) an insured employee is entitled to five kinds of benefits, viz., the medical benefit, sickness benefit, maternity benefit, disablement benefit and dependents benefit. Of these medical benefit is the only benefit rendered in kind. The others are in the form of cash payment. 19,126 persons had been covered by the scheme on April 1, 1964. The names of the centres, the number of employees and the dates of implementation of the scheme in respect of each centre are given below:

	Centre	No. of Employees	Date of implementation
1	Alwaye	4,939	16-9-1956
2	Udyogamandal	4,270	"
3	Ernakulam	4,380	"
4	Thoppumpadi	1,767	3-1-1960
5	Panayanappalli	2,570	"
6	Perumbavur	1,200	16-12-1961

As factories employing 20 or more and using power alone come under the purview of the E.S.I. Act, only the employees of such establishments are covered under the scheme. There are full-time E. S. I. Dispensaries at Ernakulam, Alwaye, Udyogamandal, Thoppumpadi and Panayanappalli. In addition, a part-time Dispensary is functioning at Perumbavur. Though treatment in the Dispensaries is only out-patient there is provision for domiciliary medical advice and treatment. In order to meet the needs of those requiring hospitalisation, beds are reserved in the District Hospital, Ernakulam, Women and Children's Hospital, Mattancherri, Government Hospital, Palluruthi, and Mct. M. Hospital, Rayonpuram. Certain number of beds are reserved for their use in the K. V. Sanatoriam, Trichur. The services of Specialists in Eye, E.N.T., T.B. V.D. etc. are also given to insured persons in the District.

It may be mentioned that the benefits accruing from the Employees State Insurance scheme have been extended with effect from February 2, 1964 so as to cover also the families of the insured workers in all centres of this District except Perumbavur.

Maternity Benefit Scheme

The labourers are also benefited by the provisions of the Maternity Benefit Act, the Workmen's Compensation Act and the Employment of Children Act. Detailed information regarding the maternity benefit paid to women workers in factories in the Ernakulam District under the provisions of the Kerala Maternity Benefit Act(1957) during the period 1958-63 is given below:—

Benefit under the Kerala Maternity Act (1958-63)

Year	Total No. of female workers employed in factories submitting returns	No. of female workers excluding children covered under the Act	No. of claims accepted	No. of miscarriages	Amount of Maternity Benefit paid Rs.
1958	2,221	1,670	1,115	49	24,778.90
1959	2,310	1,801	1,470	62	42,013.38
1960	2,607	2,100	1,095	110	40,804.70
1961	1,318	1,984	128	9	13,565.08
1962	1,481	1,997	132	15	12,491.13
1963	1,699	2,021	156	13	13,785.95

It may be noted that women workers employed in such industries as Tile, Pottery, Plantations, Canning, Textile, Cashew, Saw Mills, Coir, Soaps & Oils, Chemicals, Match etc. are benefited by the provisions of the Kerala Maternity Benefit Act.

Amenities in Plantations and Factories

The Factories Act and the Plantations Labour Act also provide for several other amenities to labourers. The number of estates coming within the purview of the Kerala Plantations Labour Act in Ernakulam District comes to 16, and in almost all these estates, the workers are provided with the facilities envisaged under the Act and Rules. There are co-operative societies, reading rooms, canteens, creches and recreation clubs in several of them. Hospitals and dispensaries are also provided in plantations as per the Kerala Plantation Labour Rules (1959) and qualified Medical Officers are working in them. All resident plantation workers are provided with the housing facilities in accordance with the Kerala Plantation Labour Rules. In addition to the general facilities, certain notable industrial concerns

like the FACT, Indian Aluminium, Travancore Rayons etc. provide certain special amenities to their employees. These have already been described in Chapter V.

The welfare of workers at the Cochin Port is specially taken care of by the Port Trust. Scholarships for 30-40 children of the employees are being granted annually. Variety entertainments etc. are occasionally arranged free of charge as part-time recreation to the workmen. Hindi classes are being conducted and workmen are taking the best advantage of these classes. A pucca Reading Room and Library with a large number of books, important dailies, weeklies, periodicals etc. is being run most satisfactorily. In-door and out-door games are also provided. Facilities such as medical aid, canteens, latrines, drinking water at the work spots, etc. are also provided to workmen.

Old Age Pension Scheme

The Old Age Pension scheme which is intended to benefit the public in general was introduced in this District with effect from November 1, 1960. All destitute persons of 70 years of age and above who are domiciled and have resided in Kerala for more than a year on the date of application are eligible to receive Rs. 15 per mensem as pension. The District Collector is the authority to sanction and disburse the pension. Up to April 1, 1964 a total number of 1684 persons had been granted old age pensions in this District. Every month the Collector sends the pension amounts to the recipients concerned. The Money Order Commission is met by the Government.

Financial Assistance to Indigent T. B. Patients

A scheme for financial assistance to indigent T.B. patients among the general public is being implemented in Kerala with effect from 1963-64. This is intended mainly to help those T.B. patients who have failed to obtain admission to T.B. Hospitals and are in dire need of financial help to safeguard their health. A sum of Rs. 30 per mensem is granted to a patient for a period of 6 months in the first instance and it is likely to be renewed for another period of 6 months in really deserving cases. A Taluk-wise statement of the number of T.B. patients receiving such assistance and the amount disbursed as on June 15, 1964 is given in the next page.

Taluk	No. of persons to whom assistance has been sanctioned till June 15, 1964	Amount disbursed till June 15, 1964 Rs.
Total	**198**	**14,400**
Kanayannur	63	3,420
Cochin	41	2,760
Parur	21	2,790
Alwaye	35	1,770
Kunnathunad	28	2,580
Moovattupuzha	..	..
Thodupuzha	10	1,080

PROHIBITION

The whole Ernakulam District with the exception of the old Fort Cochin area is wet. Prohibition was introduced in Fort Cochin in October 1947. The prohibition work in this town is attended to by the State Police as in other parts of the erstwhile Malabar area. The main difficulty encountered in enforcing prohibition is that Fort Cochin is surrounded by wet areas on all sides and the culprits therefore find it easy to escape police vigilance. In spite of this handicap, the police has been able to detect a good number of cases. The statistical information in regard to prohibition cases is given in Chapter XII.

ADVANCEMENT OF BACKWARD COMMUNITIES

The Department of Harijan Welfare is in charge of the activities connected with the advancement of backward communities in the District. The District Welfare Officer, Ernakulam, is the head of the Department at the District level. He is assisted by Taluk Welfare Inspectors (one in each Taluk), an Industrial Supervisor, a Special Co-operative Inspector and a team of Harijan Sevaks. A Special Tahsildar for Land Acquisition (Harijan Welfare) is also attached to the District Welfare Office, Ernakulam. There is also a District Advisory Committee consisting of non-official members. The District Collector is the Chairman of this Committee and the District Welfare Officer its Convener. The Committee advises the Government on matters relating to the uplift of the Harijans in the District.

An important measure connected with the Harijan welfare work is the eradication of the age long practice of untouchability. The Temple Entry Proclamation of 1936 by the Travancore Maharaja and the later one by the Maharaja of Cochin (1947-48) are important steps in this direction. Untouchability has since been abolished by legislation and its observance in any form has been made punishable under the provisions of the Indian Penal Code. Harijan Days are celebrated at the end of every month under the auspices of the Harijan Welfare Department with the whole hearted co-operation and assistance of all sections of people. Inter-caste marriages are encouraged by the Government by payment of lump sum grants of Rs. 500 to poor couples who volunteer for such marriages.

The Harijans of the District are poor landless agricultural labourers. Most of them do not own lands even for house sites. Hence it is the Government's policy to provide them with house sites and cultivable lands by assigning suitable *poramboke* lands on concessional terms. A colonisation scheme for Harijans is also being implemented. The colonies help the Harijans to live in groups and develop healthy social habits. A salient feature of the colonisation scheme is that 10% non-Harijans are also admitted to the colonies with a view to establishing communal harmony and preventing segregation. The colonies are provided with amenities like Welfare or Tribal Schools for children, night schools for adults, libraries and reading rooms, common buildings, radio sets, approach roads, wells, burial grounds etc. There are 43 such colonies in the District—21 in Kanayannur, 9 in Alwaye, 4 in Moovattupuzha, 3 in Kunnathunad, 3 in Parur, 2 in Cochin and 1 in Thodupuzha. The Taluk-wise list of Harijan Colonies is given below:—

Harijan Colonies (1963)

Taluk	Names of Colonies	
Kanayannur	1 S.M.P. Colony (Nadama Village).	
	2 Mulanthuruthi Colony (Chengalapadam)	
	3 Ponnurunni Vettuva colony	
	4 Nettur Ullada colony	
	5 Alasukodam colony	Mulanthuruthi Village
	6 Pulikamali colony	
	7 Arakunnam colony	
	8 Kavukode colony	

Taluk		Names of Colonies
	9	Amballur colony
	10	Edappilli Ullada colony
	11	Kadavanthara colony
	12	Kanjiramittam colony
	13	Ezhipuram colony
	14	Oormilakunnu colony
	15	Parapacode colony
	16	Kulayattikara colony
	17	Kaipattur colony
	18	Thalacode colony
	19	Nagapadi colony
	20	Kurikad colony
	21	Thrikkakkara colony
Thodupuzha		Mullaringad
Cochin	1	Elangunnapuzha
	2	Njarakkal
Parur	1	Veliyathunad
	2	Puthenvelikara
	3	Kuttipuzha
Kunnathunad	1	Vadavukode
	2	Kutta colony
	3	Pinermunda
Moovattupuzha	1	Paipra colony
	2	Maneed (Memigham)
	3	Ramamangalam
	4	Maneed (Pampra)
Alwaye	1	Ezhattumugham
	2	Malayattur West
	3	Malayattur East
	4	Sreemoolanagaram
	5	Vellarappilli
	6	Thekkumbhagom
	7	Makkattu
	8	Manikkamangalam
	9	Edathala

Thodupuzha Taluk, situated in a hilly region, is the natural abode of the aboriginal tribes in the District such as Malayarayans, Uralis and Mannans whose main occupation is agriculture and a number of tribal settlements have been set up here. They are located in the following places:— Kannampadi, Mullakudi, Kizhukanam, Vairamani, Painavu, Maniayaramkudi, Mulakuvalli, Keezhukanam,

Perumkala, Pattaikudi, Pazhayari, Vellakkayam, Venmani, Palaplavu, Memuttom, Valiyakandam, Pattipalli, Puthadam, Karupilangad, Kunnam, Poochapra, Kolapram, Poomala, Maliyani, Methoddi, Thadiyanalkudi, Kozhippilli, Kilivalli, Peringasseri, Moolakkad, Uppukunnam and Venniyani.

Considerable progress has been achieved in providing educational facilities to the Scheduled Castes and Scheduled Tribes in the District. There are six Welfare Schools and nine Tribal Schools. Lump sum grants for the purchase of books and cloths are being paid to all students of the Scheduled Castes and Scheduled Tribes in the pre-Matriculation classes. In addition to the above lump sum grant, a monthly stipend along with full fee concession is granted to the students attending the Post-Matriculation classes. In all educational institutions, both technical and non-technical, seats are reserved for Harijans. Students undergoing technical training in various institutions are also given monthly stipends and lump sum grants. There are also four Model Welfare Centres in the District to impart training to Harijans in such trades as carpentry, weaving, rattan work etc. An industrial training centre for Kora-mat weaving is also functioning at Malayattur. A craft centre has been set up at Poomala in Thodupuzha Taluk to give training in Rattan Work for ten Scheduled Tribe students. They are also eligible for monthly stipend at the rate of Rs. 25 per head. The Harijan Welfare Department is also running Hostels for the benefit of the Harijan students. In order to promote the cause of social education among Harijans, Libraries and Night Schools have also been set up in different parts of the District. In 1961-62 there were 12 libraries—3 in Parur Taluk, 3 in Moovattupuzha Taluk, 2 in Kanayannur Taluk, 2 in Thodupuzha Taluk and one each in Alwaye and Kunnathunad Taluks. More details of the educational activities connected with Harijan welfare can be had from Chapter XV.

A mobile Medical Unit under a Medical Officer is also functioning with headquarters at Moovattupuzha. The unit regularly visits the tribal settlements and dispenses medicines to the tribals in need. A full-fledged Ayurvedic Dispensary is functioning at Naliyani which the mobile Medical Unit is not in a position to visit owing to difficulties of communication.

The Department of Harijan Welfare has also taken interest in organising the Harijans on co-operative lines. In 1961-62 there were 31 such Harijan Co-operative Societies in the District. The Department has also been building tiled houses for the Harijans year after year. Provision of free legal aid and interest-free loans are also measures which have benefited the Harijans of the District. The expenditure incurred by the Harijan Welfare Department has been steadily increasing year after year. The expenditure for each of the years from 1959-60 to 1963-64 is given below:—

Year	Expenditure
	Rs.
1959-60	5,00,428.69
1960-61	7,98,453.53
1961-62	11,72,643.76
1962-63	12,84,049.32
1963-64	13,77,995.96

PUBLIC TRUSTS AND CHARITABLE ENDOWMENTS

Devaswoms

Devaswoms or temples are perhaps the most important public trusts and charitable institutions in the State.[1] The temples in the Travancore and Cochin areas of Ernakulam District are under the management of the Travancore and Cochin Devaswom Boards respectively. In pursuance of the provisions of the Covenant executed by the Maharajas of Travancore and Cochin with the concurrence of the Government of India at the time of the integration of the two States in 1949 the administration of the Devaswoms in the two areas was vested in two separate Boards constituted under an Ordinance issued by the Rajpramukh of the United State of Travancore and Cochin. The Ordinance was repealed by the Travancore-Cochin Hindu Religious Institutions Act 1950 (Act XV of 1950) which was passed to make provision for the administration, supervision and control of Devaswoms and other Hindu religious endowments and funds. The Act as amended by Acts XXV of 1940, I of 1957 and XXXVI of 1958 and the Kerala Adaptation of Laws Order 1956 embody the law regarding religious institutions in the area of Travancore and Cochin.

1 For a brief history of Devaswoms see Chapter XVII in the *Trivandrum* and *Trichur District Gazetteers*.

For administrative purposes Devaswoms under the Travancore Devaswom Board have been grouped and placed in charge of Devaswom Superintendents. The temples in the Travancore area of Ernakulam District come mainly within the three Groups, viz., Parur, Thrikkariyur and Vaikom. The Devaswoms under the Travancore Board have also been classified into Major, Minor and Petty on the basis of their annual expenditure on *Pathivus*. Those whose expenditure is Rs. 1,000 and above are classed as Major, those whose expenditure is above Rs. 100 and below Rs. 1,000 are classed as Minor and the rest as Petty Devaswoms. The following is a statement of the number of Major, Minor and Petty Devaswoms in the Vaikom, Parur and Thrikkariyur Groups.

Group	Major	Minor	Petty
Vaikom	10	5	8
Parur	9	12	25
Thrikkariyur	3	7	40

Apart from the Devaswoms the Travancore Devaswom Board is also managing institutions of a cultural and educational character. In this District it runs a High School at Thrikkariyur and a Religious Library each at Alwaye and Kannankulangara.

Devaswoms in the Cochin area of the District which come under the administrative control of the Cochin Devaswom Board belong to the Thrippunithura Group. However, there is no classification of temples in the Cochin area as in Travancore into Major, Minor and Petty. Some of the important temples have *Kizhedams* or subsidiary temples attached to them. It may also be mentioned in this connection that, under Article VIII of the Covenant entered into by the rulers of Travancore and Cochin at the time of the integration of the two States, the regulation and control of all rituals and ceremonies in the Temple of Sree Poornathrayeesa, Thrippunithura, continue to be exercised by the Maharaja of Cochin.

Kerala Wakf Board, Ernakulam

Reference may also be made in this connection to the arrangements made for the control and supervision of Muslim religious and charitable institutions. The Kerala Wakf Board functions with its headquarters at Ernakulam.

There are a large number of Mosques, *Derkhas*, *Imambras*, Orphanages, Poor Homes, *Muzaffarkhanas*, *Madrasas* and such other Muslim institutions of an educational, religious and charitable nature which have been set up under specific endowments made for the purpose and are commonly known as *Wakf* properties. In the Ernakulam District alone there are 365 mosques.[1] In order to ensure the proper administration of Muslim religious and charitable endowments the Kerala Wakf Board was constituted by the State Government in October 1960 under the provisions of the Wakf Act of 1954. The Board which consists of 11 members exercises general supervision and control over all *Wakf* properties in Kerala. There are also District Sub-Committees of the Board constituted for the proper administration and protection of *Wakf* properties at the District level.

Other Charitable Endowments

A large number of endowments created by registered Trust Deeds under the Charitable Endowments Act (1890) and their funds and properties are vested in the Treasurer of Charitable Endowments, Kerala State. Some of the endowments are for charitable purposes like feeding of the poor while others are for the payment of stipends to deserving students or for the grant of medals and prizes to students in schools and colleges or for the provision of amenities in educational institutions. It is difficult to give a detailed account of each of such endowments. Nevertheless, brief accounts of a few typical endowments which are associated with the Ernakulam District are given below.

His Highness Ravi Varma 80th Birthday Memorial Fund

This endowment consists of Rs. 1 lakh donated by His Highness Ravi Varma, a former Maharaja of Cochin, for the publication of Sanskrit manuscripts. The endowment is vested with the Treasurer of Charitable Endowments, Kerala State, appointed under Section V of the Charitable Endowments Act. The amount is invested in long-term Government securities and debentures, and the interest accruing therefrom is placed by the Treasurer at the disposal of the Administrator of the Fund on requisition and is utilised by the latter for meeting the expenditure

1 *Kerala Muslim Directory* (1960), P. 668

connected with the publication of rare Sanskrit manuscripts and also for maintaining an office set up for the purpose. The Principal, Sanskrit College, Thrippunithura, is the Administrator of the Fund and the Director of Collegiate Education is the controlling officer. The unexpended portion of the interest, if any, is added to the corpus of the fund while the sale proceeds of the publications are credited to the personal deposit account and again utilised for the publication of more manuscripts. The work of collecting old manuscripts and publishing them is carried on in the Maharaja's Grandha Library attached to the Sanskrit College, Thrippunithura.

His Highness Sri Rama Varma Sanskrit Literature Fund

The Sanksrit Literature Fund was created in 1913 with a donation of Rs. 30,000 by Sri Rama Varma, the then Maharaja of Cochin. Another sum of Rs. 15,200 was added to the Fund by the same ruler in 1914. The interest accruing from these amounts was collected and handed over to the Sanskrit College Committee which operated the Fund. The Devaswoms of Thrippunithura and Thiruvanchikulam were also directed to contribute Rs. 2,250 to the Fund every year. The unspent income was added to the corpus of the Fund which now exceeds Rs. 1 lakh. The amount is held by the Treasurer of Charitable Endowments but no scheme has yet been prepared for its utilisation.

In 1948 Sri Rama Varma Parikshit Thampuran, the then ruler of Cochin, donated another one lakh of Rupees to the same Fund. This sum was vested with the Treasurer of Charitable Endowments and a scheme was prepared for its administration. The interest accruing from the endowment is to be placed by the Treasurer of Charitable Endowments at the disposal of the Director of Collegiate Education who is the Administrator of the Fund, and it will be utilised by the latter on the recommendations of the Sanskrit College Committee, Thrippunithura. The amount is to be utilised solely for the encouragement and promotion of higher study of Sanskrit Literature and Hindu Philosophy.

Dewan Sankunni Menon Death Anniversary Poor Feeding Fund

This is a typical endowment set up for a purely charitable purpose. The endowment was created out of a

sum of Rs. 6,000 collected by the public in honour of the memory of T. Sankunni Menon who was Dewan of Cochin State from 1860 to 1879. The endowment was entrusted to the Cochin Government for the purpose of administration. On the Thiruvathira day of Chingom (August-September) in every year, i.e., on the death anniversary of T. Sankunni Menon, the interest of Rs. 240 accruing from the endowment was being used for feeding the poor as per an order issued by the Maharaja of Cochin on Dhanu 14, 1062 (December, 1886). The feeding was being conducted under the supervision of the District Munsiff, Ernakulam. After the integration of the States of Travancore and Cochin this function was not held till 1952 under an order of the Civil Supplies Department. The Nair Karayogam of Ernakulam, however, started the poor-feeding from 1952 onwards and the first celebration was conducted on September 12, 1952 with an expenditure of Rs. 240. Since then the function is being conducted every year by the Ernakulam Nair Karayogam in the Thottakat Dewans' Memorial Hall.

CHAPTER XVIII

PUBLIC LIFE AND VOLUNTARY SOCIAL SERVICE ORGANISATIONS

Representation of the District in the State and Union Legislatures

The first General Elections to be held after the formation of the Ernakulam District were the mid-term elections to the Kerala Legislative Assembly in 1960. The District had been split up into 14 Assembly Constituencies, viz., Ramamangalam, Moovattupuzha, Thodupuzha, Karikode, Palluruthi, Mattancherri, Njarakkal, Ernakulam, Kanayannur, Alwaye, Perumbavur, Kothakulangara, Parur and Vadakkekara.[1] The Parliamentary Constituencies falling within this District are Ernakulam, Moovattupuzha and Mukundapuram. Of these only the Ernakulam Constituency falls entirely within this District. Of the seven Assembly Constituencies comprising the Moovattupuzha Parliamentary Constituency only three, viz., Moovattupuzha, Thodupuzha and Karikode are in this District and the rest are in Kottayam. Similarly, the Kothakulangara, Vadakkekara, Parur and Njarakkal Assembly Constituencies form part of the Mukundapuram Parliamentary Constituency which includes portions of the Trichur District also.

Political Parties and Organisations

The political parties that have considerable hold in the District are the Indian National Congress and the Communist Party of India. The Samyukta Socialist Party (formerly Praja Socialist Party), the Kerala Socialist Party, the

1 In the General Elections prior to 1960 the first four of these constituencies lay within the Kottayam District and the rest within the Trichur District. A note worthy feature till now of the delimitation of constituencies in the area comprising the present Ernakulam District was that it had no double-member constituencies to ensure representation to Scheduled Castes and Scheduled Tribes. This defect has been rectified in the new delimitation order issued in 1963-64. The District has since been delimited into 15 constituencies, *viz.*, Angamali, Vadakkekara, Parur, Njarakkal, Mattancherri, Palluruthi, Tripunithura, Ernakulam, Alwaye, Perumbavur, Kunnathunad, Kothamangalam, Moovattupuzha, Thodupuzha and Karimannoor. Of these one seat is reserved for Scheduled Castes and Scheduled Tribes.

Revolutionary Socialist Party and the Muslim League are also functioning here. The Indian National Congress, the Communist Party of India and the Samyukta Socialist Party alone are recognised by the Election Commission as All-India Parties. The other parties have only limited following in the District. Like the Muslim League in Kozhikode and the Revolutionary Socialist Party in Quilon, the Kerala Socialist Party has had same local influence in the Ernakulam District.

A study of the election results of 1957, 1960 and 1962 will give us an idea of the relative strength of the political parties in the District. The 1957 general election was contested independently by all the political parties without any electoral alliance. 42 candidates—14 Congressmen, 12 Communists, 9 Praja Socialists, and 7 Independents contested for the 14 Assembly seats from the District. Out of a total of 794,072 votes 566,905 valid votes were polled. The Congress secured 286,485 votes, the C.P.I. 2,15,247 the P.S.P. 21,434 and the Independents 43,739. But all the 14 seats were captured either by the Congress or the Communists, the former getting 10 and the latter 4. In 1960 general elections were held only to the State Assembly. The Congress and the P.S.P. had this time entered into an electoral alliance against the C.P.I. whose Government had been dismissed from power in July 1959. The Kerala State Muslim League supported this alliance. On the whole 38 candidates belonging to the various parties contested the 14 seats. Taking into consideration the superior influence of the Congress Party in the area, the alliance parties allowed the Congress to contest all the 14 seats from the District. The Communist Party put up 10 candidates and supported 4 others. There were also 10 unattached Independents in the field. Out of a total of 885,178 votes 782,008 valid votes were polled. This represented a little above 88% of the total number of registered voters. The percentage of polling was above the State average of 86.98%. The Congress polled 4,51,326 votes, the Communist party and the candidates supported by it 325,174 votes and the Independents 5,508. The Congress Party won 13 seats and the remaining one seat was annexed by the C.P.I. In Appendix I to this Chapter is given a detailed statement of the results of the general elections of 1957 and 1960 in each of the 14 Assembly Constituencies.

In the elections to the Lok Sabha from the Ernakulam Parliamentary Constituency in 1957 there were 4 candidates in the field - 1 Congressman, 1 Communist-supported Independent and two Independents. The Congress candidate polled 142,202 votes and the Communist-supported Independent 131,579. The seat was annexed by the Congress. The Mukundapuram Parliamentary Constituency which has 4 Assembly constituencies from this District was won by the Communist, the Congress finishing second. In the Moovattupuzha Parliamentary Constituency which has 3 Assembly constituencies from this District there were 3 candidates, one Congress, one Communist and one Independent. The Congress won the seat. In the general elections of 1962 to the Lok Sabha 356,879 valid votes were polled in the Ernakulam Parliamentary constituency. The Congress got the seat securing 181,105 votes. The Communist candidates polled 157,706 votes and the Independent 18,068. It may be stated in this connection that the Congress has been holding this seat in the Lok Sabha ever since the elections under the Constitution of India began to be held from 1951-1952. The Mukundapuram and Moovattupuzha Parliamentary Constituencies also returned Congress candidates defeating their Communist rivals. In view of the fact that these two constituencies do not fall completely within this District, it is not deemed necessary to give an analysis of the votes polled.

NEWSPAPERS

The Ernakulam District occupies a prominent place in the history of Malayalam journalism. Some of the earliest Malayalam newspapers like *Paschimatharaka* (1865), *Keralam* (1866), *Kerala Pathaka* (1870) and *Kerala Mitram* (1881) were published from Cochin.[1] To this list may be added also the *Sathyanadakahalam* published from Koonamavu in 1876. The publication of the *Western Star* and the *Cochin Argus* in English at the end of the 19th century shows that the interest of the readers was not confined to Malayalam newspapers alone. Malayalam journalism was greatly indebted to Devaji Bheemji, a Gujarathi, for his pioneering work in connection with the publication of *Kerala Mitram*

1 The figures given within brackets indicate the years in which the newspapers started publication. Please see the article on the subject by A. D. Hari Sarma in the *Mathrubhoomi Weekly* dated May 24, 1959.

in 1881. He had also started a magazine in Marathi language by name *Kerala Kokil.* All these newspapers ceased publication long ago.

The *Mathrubhoomi, Malabar Mail, Kerala Prakasam, Kerala Times, Janatha, Powran, Jai Hind, Kerala Nadam,* and *Deepam* were the dailies published from Ernakulam District in 1964. The *Powran* and *Janatha* are published from Alwaye and the others from Ernakulam. The *Mathrubhoomi* was published first from Kozhikode in 1923. The Ernakulam edition of the newspaper was started in May 1962 when the Kozhikode edition found it difficult to cater to the needs of the reading public in central and south Kerala. The *Mathrubhoomi* is a national newspaper in Malayalam and it gives its readers a comprehensive coverage of provincial, national and world news. It is one of the Malayalam newspapers which maintain the best traditions of journalism. The average net daily sale of both Kozhikode and Ernakulam editions was 130,870 copies as per the A.B.C. certificate for the year ending December 31, 1962 and the Ernakulam Edition alone had a daily average net sale of 66,445 copies. In the Ernakulam District alone the daily circulation of the paper came to 16,357 in May 1963. The *Malabar Mail* was started in 1936. It is an independent political daily. The daily average circulation of *Malabar Mail* was 6,338 copies in 1962. The *Kerala Prakasam* was established in the year 1957 as a national, democratic and independent daily. It is seen from the report furnished by the daily that it was started with a view to combating Communist propaganda. In 1963 it had a daily circulation of 11,980 out of which 4,500 copies were sold in this District. The *Deepam,* an evening daily, started publication in 1931. Its daily circulation in 1961 was 2,921. The *Jai Hind* which is also an evening newspaper was established in 1958. The daily circulation of this newspaper was 9,966 copies in 1961. The *Kerala Nadam,* another evening daily, commenced publication in 1961. It has a maximum daily circulation of 5,900 copies of which 5,000 are sold in the District itself. *Powran* and *Janatha* are also evening dailies with limited circulation in the area. The *Kerala Times* started in 1957 had a daily circulation of 2,987 in 1961.

In addition to the dailies published from Ernakulam, newspapers published from outside the District have also a good circulation in this District. The *Malayala Manorama,*

and *Deepika* published from Kottayam, the *Kerala Kaumudi* published from Trivandrum and the *Janayugom* published from Quilon may be specially mentioned in this connection. The *Malayala Manorama* alone had a daily circulation of 21,599 copies in Ernakulam District according to the figures furnished in February 1963. The *Deepika* had a daily circulation of 4,511 copies in this District in 1963. In 1962 the *Janayugom* had a daily circulation of 3,651 copies and the *Kerala Kaumudi* had more than 4,000 copies in this District. In addition to these Malayalam dailies, the *Hindu* and the *Indian Express* (English dailies) published from Madras State are in wide circulation in this District as elsewhere in Kerala.

Besides dailies, a large number of weeklies, fortnightlies and monthlies are also published from the District. According to the Report of the *Registrar of Newspapers for India* (1961) the most important English weeklies are the *Kerala Law Reporter* (1959), the *Kerala Law Times* (1949), *the Kerala Mail* (1952), the *Malabar Herald* (1905) and the *Weekly Kerala* (1957) while those published in Malayalam are the *Janakahalam* (1960), the *Janasakthi* (1940), the *Republic* (1958), the *Satyadeepam* (1927), the *Socialist* (1948), the *Viswaroopam* (1960) and the *Worker*. The *Kerala Newsweek* (1958), the *Kerala Pradesh* (1960), the *Poomala* (1960) and the *Satyanadam* (1876) are the Malayalam and English bilingual weeklies published according to the same Report. The *Planting and Commerce* (1953) the *Satyaprakasam* (1959), the *Filmstar* (1959) and the *Financial Times* (1956) are some of the fortnightlies published from Ernakulam. The *Cashew and Pepper Bulletin* (1956), the *Coconut Bulletin* (1947), the *Catholic Family* (1958), the *Kalarangam* (1951), the *Sahitya Parishad* (1932), the *Deepti* (1949), *Mishravivaha Sangham Bulletin* (1960), the *Narmada* (1947), the *Ansari* (1960), the *Al-Farooqi* (1951), the *Little Flower* (1941), the *Cinema* (1956), the *Patayali* (1958), the *Samadhanadootan* (1959), the *Sandesam* (1959), the *Satyaprakasini* (1945), the *Screen* (1954), the *Television* (1957), the *Yuvarangam* (1960), the *Adhyapakan* (1960), the *Astrological News* (1960), *the Chandralekha* (1953) *the Christavakahalam* (1960), the *FACT* (1956), the *Film* (1949), the *Jayabharatam* (1949), the *Keralabharati* (1958), the *Lokaneethi* (1954), the *Narthaki* (1959), the *Rasagolam* (1959), the *Sreemati* (1960), *Ernakulam Missam* (1921) etc., are among the monthlies published from the District. While most of these are published in Malayalam, a few are bilingual and

multilingual. The English quarterlies published from the District are the *Coir* (1956) and the *Indian Coconut Journal* (1947). The *Alupuram Varthakal* (1956) is a Malayalam quarterly and the *Eucharist and Priest* (1894) is a bi-monthly in Latin and English[1].

VOLUNTARY SOCIAL SERVICE ORGANISATIONS

This District has a very large net-work of Voluntary Social Service Organisations engaged in various kinds of activities. Brief accounts of a few important organisations which responded to the request for information are given in the following sections.

Sri Ramakrishna Advaita Ashrama, Kaladi

This Ashrama, located on the banks of the river Periyar, is a branch centre of the world-wide Ramakrishna Mission with its headquarters at Belur. It was founded by Swami Agamananda (1896-1961) in 1936, the centenary year of Sri Ramakrishna Paramahamsa. Kaladi was specially chosen for the location of the Ashrama because of its importance in the history of Hinduism as the birth place of Adi Sankara. The Ashrama has justified its existence of more than a quarter of a century by engaging itself in various religious, educational and philanthropic activities.

There is a small temple attached to the Ashrama where worship is conducted in the orthodox manner, but all persons, irrespective of caste, colour or creed, can attend *puja* and prayer. Observance of birthdays of Saints, Prophets and *Avatars* is a special feature of the temple. Public functions organised to celebrate the birthdays of Sri Ramakrishna, Swami Vivekananda, Sri Sarada Devi and Sri Sankaracharya and other Saints attract large gatherings. Thus the Ashrama caters to the spiritual welfare of the masses.

In the field of education the services of the Ashrama are none too small. In 1936 a Sanskrit High School was started to promote Sanskrit learning, but later in 1947 it was converted into a new type of Sanskrit Middle School where Sanskrit is a compulsory subject. In 1963-64 it had 409 students on its rolls. The school is at present known

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1 The figures given within brackets in this para indicate the years in which the periodicals started publication.

as Brahmanandodayam Sanskrit Upper Primary. There is also a Primary School which is known as Brahmanandodayam Junior Basic School. It had 292 students on its rolls in 1963-64. The Brahmanandodayam High School, started in 1947 with 16 pupils, had a strength of 675 students in 1963-64. It is a mixed school open to all sections of the population. The Science Laboratory in this school is a well equipped one. In 1962-63 the school authorities organised a Science Exhibition which drew visitors from other institutions also.

A Weaving School housed in a pucca building serves the poor girls of the locality. The special feature of the unit is that the trainees also earn a small income while learning the craft.

The Ashrama owns a spacious Auditorium in which many public functions are held. It is being utilised by the schools also. The Sri Vivekananda Library and Reading Room containing 3,000 books is attached to the Auditorium. The Gurukulam which is also attached to the Ashrama was started in 1937 and it serves to accommodate the resident-students of the school. Here the inmates are trained under the direct supervision of monastic members in the ancient *Gurukula* model adapted to suit the modern scientific age. The intellectual and physical development of the students is aimed at without sacrificing spiritual and moral values. A hostel for the Scheduled Tribes and Castes is also functioning as an annexe to the Ashrama Gurukulam. It is a fine structure put up with a Government grant of Rs. 1,20,794.

The Ashrama had till recently a Publications Department. The *Prabudhakeralam*, the Malayalam organ of the Ramakrishna Order, was being published by it every month. The magazine is of 48 years standing and it caters to the spiritual needs of a section of the society. It is now being published by the Ramakrishna Ashrama, Vilangans, Trichur. There are also a number of other publications to the credit of the Publications Department of the Ashrama.

The Sri Sarada Ayurveda Vaidya Mandiram is a free Ayurvedic Dispensary run by the Ashrama. It was started in 1951. A large number of poor patients derive benefit from it every day. Milk supplied by the UNICEF is freely distributed among children, as and when supply is received. The building is being extended by a grant received from the

State Government. A qualified Ayurvedic physician is in charge of the dispensary. The Harijan Orphanage and Sarada Orphanage are two other charitable institutions under the management of the Ashrama.

An embankment together with a beautiful bathing ghat constructed at a cost of Rs. 91,000 is another object which interests all visitors to the Ashrama. The Siva's niche on the bank commands a beautiful view of the river Periyar, locally called Purna. A miniature dairy and a small garden complete the Ashrama set-up.

Gandhi Smarak Nidhi

The Gandhi Smarak Nidhi commenced its activities in this District in 1953. A Village Development Centre is functioning under its auspices at Nanthiattukunnam near North Parur. It runs a Model Nursery and the villagers are given practical training in intensive agriculture, compost making etc. 400 Kisan Charkhas and 200 Ambar Charkas have been distributed from the Centre, with a view to encouraging Khadi production. Twenty looms are located in the Centre and twenty outside for weaving Khadi. Khadi worth about Rs. 30,000 is produced and sold every year. There is a Carpentry Unit which produces Kisan and Ambar Charkas and also furniture. In addition, a model Ghani is installed at the centre and oil pressed. Soap is made from non-edible oil and sold in and around the village. Coir spinning is also carried on by about 250 families through a Co-operative Society. Another co-operative society has been started to encourage cow-rearing and to make good milk available to the people. Further, a Nursery School and a Creche are run at the Centre. Every week social education classes are held and inter-religious prayers conducted. Dance and music are taught free and almost every month cultural programmes are organised.

The Centre has organised a *Shanti Sena* and with its help all kinds of conflicts arising in the village are settled peacefully. The Nidhi has a Gram Nirman Centre at Naduvattam, Kaladi. Here an attempt is being made to bring a group of about 500 families into the Sarvodaya ideal of an enlarged family community. They have offered all their landed properties for the common pool of the village and are trained to produce wealth together and to share the same with their brethren. A few families have been induced to raise bananas, vegetables and paddy by joint effort

and share the produce. Similarly, two stores are run to make available to the people consumer goods at normal prices and on easy terms of credit, whenever they are out of work. Khadi production, hand-pounding of paddy and Bamboo mat-making are among the industries organised here.

One of the major Gandhian Tattwa Prachar Centres functioning under the auspices of the Gandhi Smarak Nidhi is located in Ernakulam town. Its object is to disseminate Gandhian ideals among the people. The Centre maintains a free Library composed mainly of writings of and on Gandhiji and allied publications and a reading room. Regular courses of study on Gandhian topics, occasional lectures, seminars and conferences are organised by the Centre. A Childrens' Section is also run. Two Sub-Centres at Ochanthuruthu and Thrippunithura are also conducted on similar lines, but on a smaller scale. A good number of young men and women, especially students, are attracted to these Centres. They carry on some form of social service or other in the towns such as clean-up campaigns, slum-service, relief activities etc.

Bharat Sevak Samaj

The Bharat Sevak Samaj set up its branch in 1954 in the erstwhile Trichur District with its headquarters at Ernakulam. Its main activity in those days was the conduct of labour and social service camps. In addition, a few local development works were also executed with the voluntary labour and resources of the people. Later, when the new District of Ernakulam was formed, the BSS set up its new District Committee with headquarters at Ernakulam. In 1963 there were 41 village units in the District engaged mainly in mobilising public co-operation for Plan activities.

A Night Shelter is being run by the BSS in Ernakulam town. It provides sleeping accommodation for about 50 persons who are homeless casual day labourers.

A Slum Service Centre was opened at Kaloor in Ernakulam town in 1960 with financial assistance from the Planning Commission. Later the Centre was shifted to Mattancherri where the conditions existing in the slum areas deserved more attention and care. The Mattancherri Centre is conducting nursery schools, craft classes, youth clubs, leadership training programmes etc. One Community Organiser and three field workers are attached to the Centre.

A pilot project for Urban Welfare Programme was started in 1962 at Thevara, Ernakulam, with the financial support of the Central Social Welfare Board. The scheme covers about 500 families and caters to their all-round development. It is being worked in close co-operation with the Extension Department of the Institute of Social Work, S.H. College, Thevara, under the guidance and supervision of their staff. One trained Community Organiser and two part-time job instructors are attached to this project.

A Plan Information Centre was set up in Ernakulam in 1962 by the BSS to conduct study circles, symposia and other programmes that may be helpful for the dissemination of information regarding Plan activities. A committee consisting of the representatives of various Colleges and prominent non-officials is implementing this programme. A reference library is also attached to it.

The BSS is the co-ordinating and supervising agency for the rural development project known as Lok Karya Kshetra which is functioning in the Vaipin Island under the local branch of the Gandhi Smarak Nidhi. During summer holidays social service camps are organised by the Samaj for students, teachers and rural youth. These camps are held in rural areas in close co-operation with the NES Blocks and local Panchayats. A Women's Industrial Co-operative Society organised by the BSS is working in Ernakulam town since 1962 and it is engaged in tailoring, garment-making and other useful activities. A physical training programme for village youth is also being implemented through the Bharat Sevak Dal units in a few select areas like Edavanakkad. Further, the Samaj has also organised at District and Block levels training camps for officials and non-officials associated with the community development programme and also conducted seminars to popularise plan activities.

Indian Conference of Social Work, Ernakulam

The Kerala State Branch of the Indian Conference of Social Work, set up in 1953, functions with its headquarters at Ernakulam. Its main objective is to undertake, promote and develop the study of social problems, to review and guide the progress of social work and to serve as a forum for exchange of information in respect of social work and social

service organisations. It has several classes of members such as patrons, life members, ordinary members, institution members, honorary members etc. Its affairs are managed by an Executive Committee consisting of not more than 24 elected members including the Treasurer, the General Secretary and the Joint Secretary, the President and Vice-President being ex-officio members. It had 67 institutional members and 150 individual members in 1960. Many welfare institutions like Orphanages, Foundling Homes, Homes for the Aged and Infirm, institutions for the socially handicapped women, community centres, youth organisations, health centres, social service leagues etc. etc., are on its rolls and the Conference has been trying its best to improve and expand the services of these institutions.

One of the ways in which the Conference assists its member institutions is by securing grants from the State and Central Governments. Seminars and orientation classes are also held for the representatives of Welfare institutions in order to acquaint them with the modern trends and techniques in the field of social work. The Conference has also prepared schemes and plans for Municipalities and the Government. A scheme prepared by the Conference to tackle the beggar problem in the Ernakulam town was partly implemented by the local Municipality. The Conference also co-operates with welfare agencies in activities of common interest and helps them in planning their programmes and projects. It has also conducted leadership courses by giving classes in social work at such centres as Ernakulam, Alwaye, Cochin, Moovattupuzha and Vazhakulam. The conferences convened by it from time to time have helped to focus the attention of the public and Government on important social problems and the felt needs of the people.

Y.M.C.A., Ernakulam

The Y.M.C.A., Ernakulam, was established in 1938. It runs a Hostel and a Boys' Home. The Hostel was completed in July 1962 and it provides accommodation for 30 members. The Y.M.C.A. movement in West Germany helps in the maintenance of the Boys' Home. The Ernakulam Y.M.C.A. also runs a restaurant for the benefit of the residents and the general public. In 1962-63 the Association had 250 members. Its administration is conducted by a Board of Directors consisting of not more than fifteen members. The Board elects from among its own members

a President, two Vice-Presidents, a Treasurer and other office-bearers. They are empowered to establish branches and conduct the entire affairs of the Y.M.C.A. The association receives financial assistance from many sources including the International Committee of Y.M.C.As. of U.S.A. and Canada which gave 15,000 dollars for the construction of a building. In 1962 the Ernakulam Y.M.C.A. had property and assets worth Rs. 2,33,208.

Y.W.C.A., Ernakulam

The Ernakulam Y.W.C.A. was established in 1952. Its most important activity is to run a Hostel which in 1962-63 provided accommodation for 75 students and 20 employed women. It is also engagd in activities such as conducting sports, games, children's rallies, elocution competitions etc. A co-operative society was started under its auspices in 1962-63. All finished articles such as handicrafts made by the members are exhibited here for sale. 5% of the proceeds goes to the Y.W.C.A. and the rest of the amount to the members concerned. In addition, a Nursery School in which 36 children are taught is also run by the Association. A club consisting of 30 girls between the ages of 8 and 14 meets at the Y.W.C.A. once a week for taking part in games and other activities. Free milk distribution is conducted at the child welfare centre in Kathrikadavu where 40 to 45 children and mothers come daily. About 40 children attend the Nursery School attached to the centre. The association also conducts a needle work class. In 1962-63 the Y.W.C.A., Ernakulam, had a membership of 150. Its income and expenditure were Rs. 17,321 and Rs. 17,321 respectively. The Central Social Welfare Board and the National Christian Council are giving financial assistance to the Association.

Yogia Pai Narayana Pai Trust, Cochin

This Trust was formed in April 1954 by N. Govinda Pai and N. Lakshmana Pai in memory of their father Yogia Pai Narayana Pai who had in his life time visualised the need for such a Trust and set apart a good portion of his wealth for the purpose. The Trust building is situated in the heart of Mattancherri town about a furlong south-east of the Thirumala Devaswom Temple. With a Main Block, *Kalyanamandapam*, Lecture Hall, etc., it caters to the varied needs of the Gowda Saraswath community of Mattancherri.

Marriages, *Upanayanams*, religious discourses etc. are frequently conducted here. The Trust is also engaged in such activities as granting of scholarships to the needy and deserving students, distribution of clothes to widows, cremation of destitutes, etc. It also provides facilities for free medical service to the community by medical practitioners who volunteer for the purpose. One block of the Trust building is set apart for the stay of school and college students. The Trust also conducts free classes in Short-hand and Typewriting and tuition in Hindi and Sanskrit. Tourists who visit Mattancherri are provided free accommodation in the Trust building. A scheme to build a separate building to house a Library and Reading Room and a Prayer Hall is under the active consideration of the Trust.

St. Mary's Refuge Home, Chengal

Established at Chengal, near Kaladi, in 1921 to give shelter to the fallen and forsaken women and their young ones, the St. Mary's Refuge Home is run by the Religious Sisters of St. Germain's Convent, Chengal. In 1963 there were 40 women and 7 children in the Home. The number of fallen women and children seeking asylum has increased in recent years. The construction of an additional building has, therefore, been taken up. The inmates of the Home are engaged in such activities as bamboo mat-weaving, poultry farming and dairying. In addition, the Home maintains a craft centre where such crafts as weaving, book-binding, tailoring and embroidery are practised. The Central Social Welfare Board gives an annual grant of Rs. 2,000 to this institution. The administration of the Home is carried on by two members, a Treasurer, Secretary and the President. Its expenditure during 1962-63 amounted to Rs. 12,374.

House of Providence, Ernakulam

Established in 1938 in Ernakulam town the House of Providence is a home for the aged, poor and infirm. In 1962 there were 74 inmates in the House. The institution has no capital outlay and depends solely on the munificence of the public. The inmates are nursed and maintained by the Religious Sisters with the help of some public spirited girls who have volunteered for honorary work. The house gets an annual grant of Rs. 5,000 from the Central Social

Welfare Board. Its administration is conducted by a governing council of which the Mother Superior of the House of Providence is the ex-officio President. In 1962-63 the expenditure incurred by the institution came to Rs. 23,814·40.

House of Refuge, Paduapuram

This institution which is perhaps the only one of its kind in Kerala is located at Paduapuram near Ankamali (Alwaye Taluk). It was established in March 1948 by the Institute of the Sisters of Nazareth. Its aim is to provide refuge for handicapped, forsaken and rescued women in distress, to conduct foundling homes and orphanages, to provide maternity and child welfare services and to impart vocational training for destitute women. The Director of the Institute of the Sisters of Nazareth, Paduapuram, is the ex-officio President of the House of Refuge. In 1962-63 there were 242 inmates in the House. This included 63 fallen women, 56 destitutes needing protection, 90 children and 33 foundlings. The House has trained and qualified persons on its staff to look after the welfare of the inmates and to train them in useful vocations like cloth-dyeing, binding, tailoring, embroidery and cutting. There is a Dispensary under the Institute which caters also to the needs of the people of the locality. The House has a children's play-ground, equipped with swings, slides and merry-go-round. There is also a children's library containing books and charts of educational value. A Nursery School for children has also been planned as part of the activities of the Institute. The Central Social Welfare Board helps the Institution with annual grant.

Boys' Town of India, Fort Cochin

This institution was started on 23rd November, 1952, at the instance of the late Rajkumari Amrit Kaur with the object of ameliorating the condition of the poor children of the locality. It was registered as a non-profitable charitable institution and accepted by the Madras Government as a Famine Relief Organisation. The present building and compound which belong to this institution were originally intended for its office only, but they accommodate about 30 boys. All the children are either attending school or studying some technical subject. The institution has no capital of its own but is financed by charity and contributions given by the Bishop of Cochin (Cochin Diocese) to whom it belongs.

Home for the Aged and Infirm and Martha's Home, Chunangamveli

The Home for the Aged and Infirm, Chunangamveli, was started in 1927 under the patronage of the Archbishop of Ernakulam with the object of providing shelter to the aged and infirm. It is managed by the religious congregation of the Sisters of the Destitute. Though started with only 10 inmates, it now accommodates 105 inmates. The inmates are given free food, clothes and medical care. Almost all of them are unable to do any sort of work owing to old age and infirmities. However, a few attend to such items of work as cleaning, weeding the garden, feeding the cattle etc. The expenses of the Home are met mainly by contributions from the Archbishop of Ernakulam. It is also getting a grant from the Government and occasional donations from the public.

There is also another charitable institution here for destitute girls, 'Martha's Home' by name. It was started in 1936 under instructions from the Archbishop of Ernakulam with the aim of giving shelter to poor destitute young women who might otherwise become victims of moral ruin. The Home is also being managed by the Sisters of the Destitute. There were 107 members in it in 1964. The inmates are given vocational training in various fields such as spinning, weaving, lemon-grass distillation, rubber tapping, vegetable gardening, dairy farming etc.

St. Joseph's Orphanage, Karukutti

This was founded in 1922 by the Sacred Heart Convent, Karukutti. The institution provides shelter, education and training to orphan girls as well as accommodation to physically handicapped and destitute old women. In 1962 it had 96 inmates of whom 70 were children and 26 adults. The expenses are met mainly from the funds of the Convent but the State Government and the Central Social Welfare Board also give some financial aid. In 1962-63 the expenditure came to Rs. 21,933. A printing press, cutting machine, typewriters and other printing and binding accessories have been installed in the orphanage to give technical training to the inmates. The orphan children are taught printing and binding. They also attend school. The Governing Council of the orphanage consists of 8 or 9 members and the Mother Superior of the Convent.

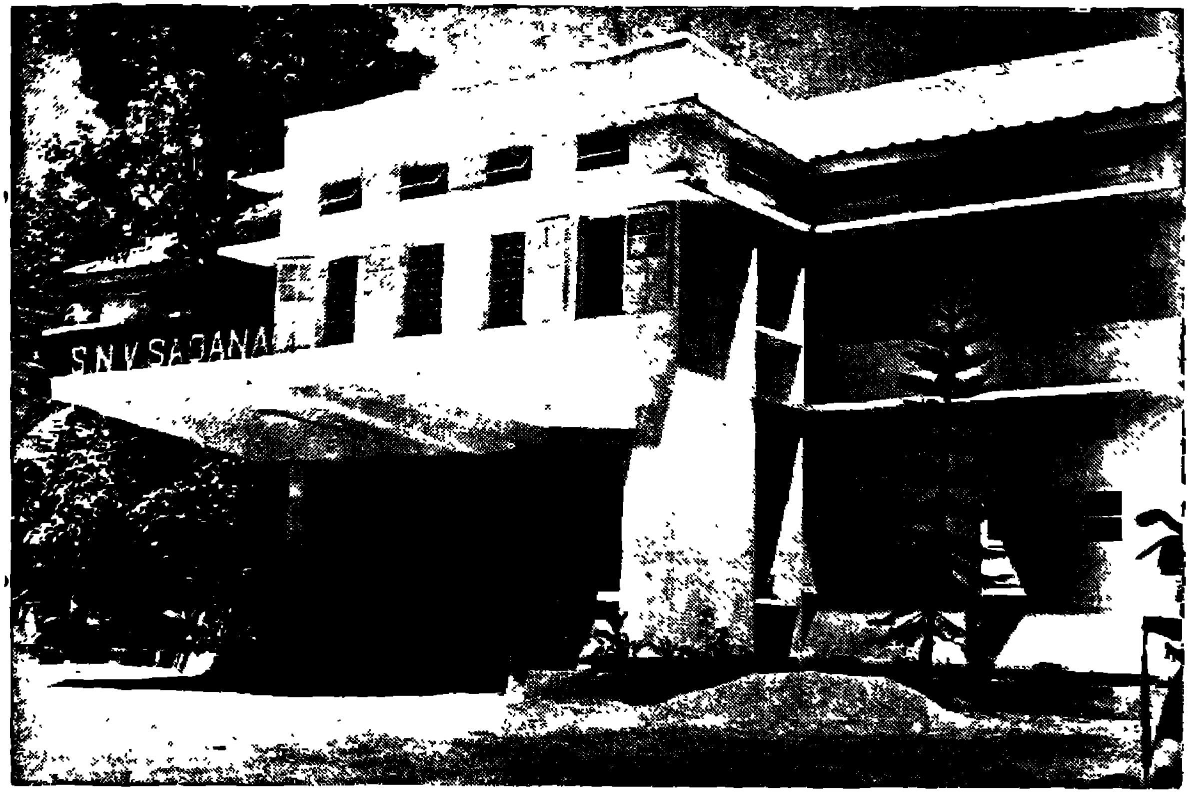
Muslim Anatha Samrakshana Sangham, Cochin

Established in 1928 mainly for the purpose of arranging the burial of unclaimed bodies of poor Muslims, the Sangham has Mattancherri and Fort Cochin as the sphere of its activities. It is engaged in the task of propagating the principles of Islam. It also renders all help to the new converts to Islam. Its activities include the celebration of the birthday of the Prophet, education of illiterates, publication of Islamic literature, encouragement of Urdu language etc. etc. The Sangham has assets worth about Rs. 45,000. In 1962-63 it had an expenditure of Rs. 4,000 and a total membership of 150.

Mahila Mandal, Alwaye

The Mahila Mandal, Alwaye, started in 1948, has some tangible achievements to its credit. It constructed in 1959 a building of its own at a cost of Rs. 20,000. It had three patrons, 14 life members and 95 ordinary members on its rolls in 1962. The Mandal maintains a library and reading room consisting of Hindi, English, Tamil and Malayalam books and periodicals. Attached to the library is a children's section consiting of books meant for the members of the *Balasamaj*. A nursery class started in 1956 has been recognised by the Kerala Government. Thirty-eight students were attending the class in 1962. Poor feeding is a regular activity of the Mandal. Special feeding coupled with free supply of oil, soap and clothes is also a feature of its activities. For this purpose contributions from CARE and individuals are received by the Mandal. Since 1948 Hindi classes are being held and 75 students were undergoing studies in Hindi in 1962. Pupils are coached up for examinations held by the Dakshina Bharat Hindi Prachar Sabha and for the Vidwan Examinations of the Kerala University.

The Mahila Mandal also runs a Craft Institution which has several sections. The sewing class which is offering training to students for the Kerala Government Technical Examination was opened in 1955. The tailoring section imparts training in the production of fancy articles such as hand-bags, baskets etc. The book-binding section offers instruction in the making of note books, file boards, envelopes etc. It is significant to mention that the trainees are given a stipend fixed on the basis of the volume and value of their products. The Mandal also runs a Typewriting Institute



S. N. V. SADANAM, ERNAKULAM

where there are more than 6 typewriters and Typewriting, Shorthand and Accountancy are taught here. The institution also encourages cottage industries and the products manufactured are sold to purchasers from the surrounding area. An art centre was founded in 1958 and here children are given training in *Bharata Natyam*. In pursuance of a scheme adopted by the Indian Council of Child Welfare, the Mandal conducted a holiday camp for a batch of 50 girls in 1962, the expenditure being met from a grant of Rs. 3,000 made available by the Council. Training in Charka is also imparted at the institution.

The expenditure of the Alwaye Mahila Mandal came to Rs. 19,606 in 1962 and this was met from the subscriptions of members, donations from friends and well-wishers, grants from the Social Welfare Board and State Government and donations from CARE.

S.N.V. Sadanam Trust, Ernakulam

The Sree Narayana Vidyarthini Sadanam Trust, Ernakulam, is a cosmopolitan organisation working for the welfare of women and children. Its aims are to maintain, manage and develop a women's hostel, establish and manage the branches of the hostel and set up other institutions intended for the educational, cultural, moral, economic and social welfare of women in general and of women belonging to backward communities in particular. The Sadanam Hostel being run for girl students and working women at Ernakulam is the main institution under the Trust and it came into existence as early as 1921. Originally accommodated in a small thatched building in a marshy spot, it occupied thirteen rented houses in the course of 40 years and finally came to have its own building only in March 1960. In 1963 there were 92 inmates in the Hostel - 58 students and 34 working women. The site and the building together have cost the Trust about a lakh and a quarter Rupees.

The Sadanam was registered as a Trust only in 1957. It had 80 members on its rolls in 1963. The activities of the Trust cover a very wide range. It has the following units attached to it:—1. Library for Women and Children, 2. Milk Centre for children, 3. Balasamajam, 4. Dance class, 5. Junior Red Cross, 6. Women's Club, 7. Vanitha Samajam, 8. Social Service League, 9. First Aid and Knitting, 10. Children's Club. It may be mentioned that the library

is housed in a separate two-storied building constructed at a cost of Rs. 17,520 . In 1963 it had 214 members and 7,897 books. A pre-natal and post-natal clinic functioned for some time under the Trust, but it had to be stopped for lack of space in the Sadanam premises. The income and expenditure of the Trust came to Rs. 34,449 and Rs. 26,142 respectively in 1963.

Vimala Welfare Centre, Ernakulam

Established in 1961 with registered office at Vimalalayam, Chittur Road, the Vimala Welfare Centre, Ernakulam is conducted by the Institute of Social Service, Nirmal Niketan, Bombay, for the benefit of the young women and girls of poor families in the town and its suburbs. An Industrial School and a Craft Centre are functioning at this Welfare Centre. Training is given here in different crafts such as embroidery work, making kora grass mats, children's garments and embroidered screw-pine table mats, and plastic weaving on chairs and tables. About 160 students are trained annually in one or other of these crafts. The trainees also get adequate remuneration. A girl who works regularly gets as much as Rs. 20 per month besides morning refreshments and noon meals. Classes in Malayalam language and moral instruction form an essential part of the programme of activities at the Centre. Simple recreational facilities are also provided. In addition, the Centre provides health service to the students by regular distribution of Vitamin tablets, prevention and detection of diseases through periodic home visits and securing free medical service and hospitalisation. The Centre proposes to help the trainees to supplement their family income by organising production centres on co-operative lines in their localities. The membership in the Centre is open to the Religious Sisters of Vimalalayam. Its administration is run by a Governing Council of which the Mother Superior of Vimalalayam is the ex-officio President. The expenditure of the Welfare Centre is met from donations, endowments, subscriptions of members, contributions from Vimalalayam, Ernakulam and grants from the State Government and the Central Social Welfare Board.

Sarvodaya Vanitha Samajam, Nanthiattukunnam, North Parur

This is an important women's association functioning in the District. Established in September 1956, it has been

doing very useful social service in the locality. A Nursery School was started under its auspices in 1957. It is housed in a building constructed with the aid of the Central Social Welfare Board and generous contributions from the public of the locality. Under the guidance of the Samajam a Children's Club has been actively functioning. It has a membership of about 50 children and it meets every week to train the children in public speaking, singing etc. The Samajam is also running a Children's Park and a Children's Library set up with the aid of the Central Social Welfare Board. It has also been recognised as a milk distributing centre by the UNICEF. The organisation owns 51 cents of land. In 1960-61 its annual income and expenditure exceeded Rs. 12,000.

Thevara Vanitha Samajam, Ernakulam

This association was established in May 1956 with the object of promoting the social, economic and cultural welfare of the women of the locality. It has been conducting a Nursery Class and a Craft Class since its inception. The Nursery Class has had a strength of more than 35 children. In the Craft Class instruction is given in such crafts as needle-work, embroidery, tailoring, mat-making etc. A *Balasamaj* has also been functioning under the auspices of the Samajam since 1958. The members of the Samajam have been conducting regular house visits with a view to finding out the needs of the people and helping them in all possible ways. Milk distribution is also being conducted under its auspices. The Samajam has also been running a library. In 1962 the organisation had 56 members on its rolls and its income and expenditure amounted to about Rs. 3,000.

Women's Social Service League, Moothakunnam

The Women's Social Service League, Moothakunnam, was established in 1959. Its membership is open to all girls aged fifteen or more, the total number of members in 1962-63 being 130. It conducts a *Balavadi* class where children are freely fed. A craft training-cum-production centre is also functioning under its auspices. Again, with the help of the Guild of Service, Ernakulam, the League conducts milk distribution. It has also undertaken flood relief work in times of flood. The affairs of the League are run by an executive committee consisting of 8 or 10 members.

APPENDIX

Results of Elections for

Constituency	General			
	Total No. of Electors	No. of electors who voted	percentage of columns 3&2	No. of valid votes polled
1 Ramamangalam	59,623	53,608	89.89	53,067
2 Moovattupuzha	60,612	55,017	90.77	54,427
3 Thodupuzha	55,456	48,670	87.76	48,322
4 Karikode	51,717	44,938	86.89	44,525
5 Palluruthi	67,002	60,880	90.86	60,358
6 Mattancherri	63,164	52,340	82.86	51,910
7 Njarakkal	64,681	60,082	92.89	59,693
8 Ernakulam	67,740	59,085	87.22	58,717
9 Kanayannur	68,542	61,763	90.11	61,112
10 Alwaye	72,321	64,023	88.53	63,351
11 Perumbavur	63,855	58,262	91.24	57,806
12 Kothakulangara	65,905	59,146	89.74	58,668
13 Parur	64,507	57,702	89.45	56,740
14 Vadakkekkara	60,053	54,309	90.44	53,321

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Assembly Constituencies 1960 and 1957

Elections, 1960			General Elections 1957	
Party affiliation	No. of valid votes polled by candidates	Percentage of total	Party affiliation	No. of valid votes polled
I.N.C.	32,448	61.1	I.N.C.	20,086
C.P.I.	19,871	37.5	C.P.I.	13,588
Ind.	748	1.4	Ind.	5,180
I.N.C.	33,520	61.6	I.N.C.	16,820
Ind.	20,907	38.4	C.P.I.	14,993
			P.S.P.	2,019
I.N.C.	34,156	70.6	I.N.C.	22,149
C.P.I.	13,899	28.8	C.P.I.	11,980
Ind.	267	0.6	P.S.P.	1,252
I.N.C.	29,907	67.2	I.N.C.	14,669
Ind.	13,621	30.6	Ind.	12,084
Ind.	997	2.2	P.S.P.	776
I.N.C.	33,541	55.6	I.N.C.	23,666
Ind.	26,304	43.6	C.P.I.	19,848
Ind.	513	0.8	P.S.P.	1,993
I.N.C.	32,997	63.6	I.N.C.	19,106
Ind.	18,411	35.5	C.P.I.	13,046
Ind.	502	0.9	P.S.P.	3,007
			R.S.P.	512
I.N.C.	31,212	52.3	I.N.C.	24,253
C.P.I.	28,322	47.4	C.P.I.	22,311
Ind.	159	0.3	P.S.P.	1,963
I.N.C.	32,001	54.5	I.N.C.	23,857
C.P.I.	25,108	42.8	C.P.I.	18,172
Ind.	1,600	2.7	Ind.	1,602
			Ind.	583
C.P.I.	31,582	51.7	C.P.I.	21,292
I.N.C.	29,101	47.6	I.N.C.	17,506
Ind.	429	0.7	P.S.P.	3,955
I.N.C.	34,484	54.4	I.N.C.	23,707
C.P.I.	28,867	45.6	Ind.	21,142
I.N.C.	31,718	54.9	C.P.I.	21,679
C.P.I.	25,918	44.8	I.N.C.	20,780
Ind.	170	0.3	P.S.P.	949
I.N.C.	38,681	65.9	I.N.C.	24,133
C.P.I.	19,872	33.9	C.P.I.	15,345
Ind.	115	0.2	Ind.	2,636
I.N.C.	30,360	53.5	C.P.I.	19,997
C.P.I.	26,371	46.5	I.N.C.	17,000
			P.S.P.	5,520
I.N.C.	27,200	51.0	C.P.I.	23,353
C.P.I.	26,121	49.0	I.N.C.	17,844

CHAPTER XIX

PLACES OF INTEREST

Alwaye (Alwaye Taluk), (10° 5′ North Latitude and 76° 20′ East Longitude)

A pilgrim centre, a splendid summer resort and a hub of industrial activity, Alwaye is situated fourteen miles north of Ernakulam town. It is linked with the latter both by rail and road. According to the Census of 1961, the town has a population of 20,863 (11,129 males and 9,734 females), the density of population being 7,532 per sq. mile. The town limits extend to an area of 2.77 square miles. By virtue of its industrial importance, Alwaye has become an important rail station on the Cochin Harbour Terminus-Shoranur line in regard to the handling of both passengers and goods. The 28 mile long Arur-Karukutti road, part of the National Highway 47, runs through this industrial town. It is again at Alwaye that the Periyar river branches into two streams, one flowing in the north-westerly direction into the Cranganore backwater and the other in a southerly direction into the lagoons near Varapuzha.

The floods in the Periyar river whose fury would not spare even the town of Alwaye have their own tale to tell as part of the history of the town itself. During the annual flooding of the river in June-August almost all the houses in the low-lying areas on the banks of the river are vacated and people move to places elsewhere for safety. Paradoxically enough, the floods have sometimes been a blessing in disguise to the inhabitants of the town. For instance, in 1789 when Tipu Sultan invaded northern Kerala, he marched triumphantly through Cochin State to the banks of the Periyar river near Alwaye. Within a few days of his reaching the place the monsoon set in with all its extravagance and the Periyar was in spate. With all the buildings around the place destroyed, Tipu's men got no shelter to seek safety from exposure to cold and rains both of which demoralised them to an alarming degree. All ammunitions got damp and useless. Tipu was forced to retreat.

More than anything else it is the *Sivarathri* festival held here on the banks of the Periyar on the night of the Sivarathri in the month of *Kumbham* (February-March) every year that makes Alwaye a place of considerable importance in the cultural life of the people of Kerala. It attracts to the place lakhs of people from all over Kerala and neighbouring States. The festival may very well stand comparison with the *Kumbha Mela* at Prayag. Whereas at Prayag the Ganges, the Jumna and the invisible Saraswati join together, here at Alwaye the Periyar branches into two separate streams flowing in opposite directions. On the night of the *Sivarathri* a large concourse of pilgrims converge on the sandy delta just west of the Alwaye railway bridge. The centre of attraction is a *Siva Lingom* (phallus), situated in the centre of the sand bank. Consequently, what Benares or Kasi is to the Northerner, Alwaye is to the Southerner who sometimes calls it 'Dakshina Kasi'. However, no pagoda with either architectural or sculptural marvels can be found here. The entire area would be submerged with the onset of the monsoon season from the month of June to November during which period the daily worship is conducted in the *Bala Ambalam* (small temple) on the upper bank of the river. During summer a temporary thatched building is erected around the *Lingom* and this improvised structure is dismantled when the river is in full stream.

Many a legendary story is told as to how the *Siva Lingom* came to be installed here. According to one legend it was at Alwaye that Sri Rama learnt of the sad demise of Jatayu who sacrificed his life for him and his wife Sita Devi. It was the rice bowl that Sri Rama laid here as part of the post-death ceremony of his devotee that later took the shape of *Siva Lingom.* Another story tells that the *Lingom* was installed during the period of the *Avatar* of Sri Rama who himself is said to have worshipped it. For centuries it was unnoticed till the saint Vilvamangalathu Swamiyar, who happened to pass that way, perceived a halo or *Prabha* in the centre of the sand banks. He tried to approach the place but could not do so on foot, since he found through his inner vision the matted hair or *jata* of Lord Siva spread out over there instead of the sand. Thereupon, he lay prostrate and rolled to the place. After performing some abstruse rituals and rites punctiliously he summoned the leaders of the locality and advised them on the necessity of offering daily worship to the *Siva Lingom*. A board of trustees was there-

after formed to manage the affairs of the temple. Recently the administration of the temple has been taken over by the Travancore Devaswom Board.

On the night of the *Sivarathri* the pilgrims keep awake reading and reciting the *Puranas* and other holy scriptures till day break. In the morning all of them take what may be called a community bath in the Alwaye river, some people also performing *Bali* in honour of their forefathers. A *Sivarathri* fair under the supervision of the Alwaye Municipality is also held for a fortnight commencing from the *Sivarathri* day. Side by side with the stalls and improvised shops stocked with all the goods and merchandise available in any modern bazaar, there are shown also variety entertainments in which the pilgrims and visitors who throng in their thousands take great delight. To cope with the large volume of traffic special trains, buses and boats are engaged on the *Sivarathri* day.

On the southern bank of the Periyar river are situated the Sri Krishnaswamy temple (with the deities Balabhadra and Krishna), the Advaithasram founded by Sri Narayana Guru, a mosque and a Catholic church, all side by side, as a permanent symbol of communal harmony. Of these, the Advaithasramam which is more than half a century old is a place of historic importance. It was from here that Sri Narayana Guru uttered the immortal words "One caste, one religion and one God for men". Gandhiji visited this Ashram in 1100 K.E. (1924-25 A.D.) and had discussions with the Guru. It was in the precincts of this Ashram that the momentous talks relating to the Vaikom Satyagraha (1924) were conducted between Gandhiji and the Travancore Police authorities. Other distinguished persons who visited this Ashram include Rabindranath Tagore and Acharya Vinoba Bhave. Of the many churches in the town the church attached to the Carmelite monastery and the Jacobite church are the most important, both belonging to different orders. At Alangad, four miles west of Alwaye on the way to Parur, is a very ancient Catholic Church (Estd. in 1300 A. D.), dedicated to St. Mary. The filial church "Kunnel" situated on a hillock nearby and dedicated to Infant Jesus attracts thousands of pilgrims for its principal feast.

Like Courtallam in Madras State, Alwaye though not endowed with waterfalls, affords one of the finest summer river bathings in South India. The waters of the Periyar

at this spot, claimed by many as possessing medicinal properties, have made Alwaye the haven for holiday makers and others who want to escape the scorching heat of the surrounding plains. The Portuguese, in their time, had a bathing place here called Fiera d' Alva. All along the river front here beautiful bathing ghats are provided and it is a familiar spectacle to find men and women, young and old, making for the riverside from the early hours of the day till very late in the night. Nature has also graced the place with an alluring landscape.

To serve the different classes of travellers, tourists, businessmen, industrialists, Government officials and the like who visit Alwaye either for the *Sivarathri* or to seek relief from the scorching heat of the plains or to attend some important industrial conference, there are hosts of good hotels, restaurants and boarding and lodging houses provided with all modern conveniences and amenities Overlooking the Periyar and set in ideal arcadian surroundings stands the Tourist Bungalow, a two-storeyed edifice known as the Alwaye Palace. Besides suites of well-furnished rooms, there is a spacious dining hall here. Just a furlong away from the Tourist Bungalow is the Rest House maintained by the Public Works Department. There are six double rooms here, all well equipped and furnished and the visitors can avail themselves of the fine catering service provided here. Both the Tourist Bungalow and the Rest House are only a furlong away from both the Railway Station and the Bus Stand. Near the Rest House there is a well-laid out Municipal Park.

The administration of the civic affairs of the Alwaye town is vested in the Alwaye Municipality established as early as 1911. Under the Ernakulam-Chowara Water Works Scheme pure drinking water is supplied to the town through about fifty taps. The Municipality runs a Public Library and Reading Room as well as a Sports Club. Among the medical institutions in the town, the most important are the Government Hospital and the Government Ayurvedic Dispensary. Under the Municipality there are two daily and two weekly markets. The latter assemble every Wednesday and Saturday when commodities such as coconuts arecanuts, coir, coir products, betel leaf, vegetables, eggs fish etc. are sold in large quantities. Alwaye is a wholesale trade centre in lemon-grass oil, coconut oil, rice, cloth vegetables and tiles. The Alwaye Railway Station serve

as the main transhipment centre for lemon-grass oil which is exported to foreign countries from the Port of Cochin. Large consignments of coconut oil are also sent from Alwaye to different parts of North India. Fancy articles like shopping bags, baskets etc. made of rattan have always been an attraction to the people visiting Alwaye. There are well-equipped shops in different parts of the town. Alwaye being one of the chief shopping centres in the District there is a large volume of business turnover in a variety of commodities. The cost of living here is one of the highest in the State.

The large number of big industrial establishments that have risen in and around Alwaye have made it the most important industrial centre in the State. It may verily be called the Ruhr of Kerala. The Indian Aluminium Company Ltd, the F.A.C.T. Ltd., the Indian Rare Earths Ltd., the Forest Industries (Travancore) Ltd., the T.C. Chemicals Ltd., etc. are some of the leading industrial concerns in the vicinity of the town. Manufacture of tiles is another important industry in Alwaye. There are as many as six tile factories here and the Alwaye tiles find a ready market in various parts of Kerala. Alwaye is also one of the important wholesale fish marketing centres of the State. Besides, it has a crop of other manufacturing concerns and factories such as a cashewnut factory, wood and metal industries, two or three oil mills, rice mills and saw mills. Alwaye and the contiguous fast growing industrial townships of Kalamasseri and Eloor provide scope for the integrated development of an industrial complex in the central region of Kerala.

The heart of a flourishing industrial area, Alwaye has the distinction of having the premier Christian College—the Union Christian College—started by the Indian leaders of the Christian community, while in almost all other areas in India similar institutions have sprung up as a result of foreign missionary activity. The college was started in 1921 by the leaders of the Jacobite and Mar Thoma Syrian Churches and the Anglican Church. It is situated about two miles away from the town. The important High Schools in the town are the St. Francis Girls High School, the St. Mary's High School, the S.N.D.P. High School, the C.M.S. High School etc. Besides these institutions for secondary education, there are as many as twelve Lower Primary Schools and an Upper Primary School.

A number of important Government Offices are functioning in the town. They are the Taluk Office, the Offices of the Executive Engineer, Public Health Division (Alwaye), the Superintending Engineer (P.W.D.) Buildings & Roads, Central Circle, the Executive Engineer, Electricity Store Division, the Executive Engineer, Electrical Transmission Division, Deputy Superintendent of Police, District Labour Officer etc. Alwaye has also a Police Station and a Sub-Registrar's office. The chief Central Government offices and institutions are the offices of the Assistant Garrison Engineer (B & R) and the Naval Armament Depot. The office of the Assistant Branch Manager of the Life Insurance Corporation of India is also located in the town.

Owing to the initiative of the local people and the efforts of the people from outside the town a host of leading social welfare and voluntary social service organisations have sprung up here. The leading among them are the Alwaye Rotary Club, the Y.M.C.A., the Y.W.C.A., and the Mahila Mandal. The important Christian religious institutions in the town are the St. Josephs' Apostolic Seminary, the St. Antony's Monastery, Carmel Centre and the St. Francis Convent.

Ambalamukal (Kunnathunad Taluk)

Ambalamukal, once a hilly area inhabited by rustic eople, is one of the growing industrial centres of the District. Situated about 10 miles east of Ernakulam town by the river Chitrapuzha which once separated Cochin State from the neighbouring State of Travancore, it is the site of the 2.5 million tonne Cochin Oil Refinery. An old, narrow and winding road and a newly built, broad and two-mile long road from Thrippunithura provide access to the Project site. The former road passes by the Hill Palace, the esidence of the erstwhile Maharajas of Cochin. The Refinery stands on a slight rise 60 ft above sea level and occupies an area of about 600 acres. The site has been all these years a hill for the local people and a Devi Temple is situated here at the top very near to the Refinery under construction. The word Ambalamukal itself derives its origin from the location of this temple at the top of the hill. It may be mentioned that "Ambalamukal" literally means "Temple Top". Below the hilly site are paddy fields and the local landscape is dominated by Coconut palms, Cashew and

Jack fruit trees. The Refinery under construction will have six major production units. Crude oil will be fed into the Refinery by 30-inch pipe lines laid from the Cochin Harbour to Ambalamukal through Ernakulam town and the products will go out by pipe lines, rail and road. Three 12-inch pipe-lines are being laid simultaneously, with one for crude oil, down to the Cochin Harbour to facilitate movement by coastal tankers to the consuming centres. In addition to the road facilities that are also being provided to carry the products to the nearby areas of Mysore and Madras States, a Railway marshalling yard is also being built at the place to handle 100 wagons a day, both broad and metre guage. A housing colony for the Project staff is also coming up at the site. Apart from the Oil Refinery, a Fertiliser plant estimated to cost Rs. 36 crores is also proposed to be set up at Ambalamukal. The area is developing fast into an industrial township and it will grow before long to be the centre of a gigantic petro-chemical complex.

Ankamali (Alwaye Taluk), (10° 10′ North Latitude and 76° 20′ East Longitude)

Ankamali is located six miles north of Alwaye. It is one of the Railway Stations on the Cochin Harbour, Terminus—Shoranur line and is the nearest station for the pilgrims who come to Kaladi by train. It is at Ankamali that the Main Central Road joins the National Highway 47. The headquarters of the Ankamali N.E.S. Block is located here. A place of historic importance to the Syrian Christians, it was the headquarters of the Kerala Church before the advent of the Portuguese. The first Portuguese Bishop also ruled from here but later the See was transferred to Cranganore in the seventeenth century. The population of Ankamali is predominantly Christian and both the Syrian Catholics and the Orthodox Syrians have several churches here. According to tradition the St. Hormis Church was established in 480 A. D. The last Syrian (foreign) Bishop, Mar Abraham died and was buried here in this Church in 1597. The St. George's Forane Church at Ankamali attracts thousands of pilgrims for its annual feast.

A Transformer factory, the only major one of its kind in Kerala, is being set up at Ankamali with foreign collaboration. Ankamali is also an important handicraft centre. Articles made of bamboo and reed such as mats and baskets are produced here. Among the factories and

industrial concerns here may be mentioned the Devi Match and Plywood factory manufacturing splints, veneers for matches etc., the Vijaya Tiles and Industries making tiles and bricks and a number of rice mills. A Home Science College was set up here in 1963. In addition to the College, there is a private High School here. A Secondary Health Centre is also functioning at the place. Ankamali is covered by the rural water supply scheme under the Third Five Year Plan. There is a Police Station at the place. A Sub-Registry office is also functioning here. Serving the needs of Ankamali and Kaladi there is a Telephone Exchange opened in March 1959.

Bolghatti Island (Kanayannur Taluk)

About a quarter of a mile to the north-west of Ernakulam and within easy reach of Willingdon Island lies the palm-fringed Bolghatti Island known for its idyllic location and serene atmosphere. The island, also known as *Ponnikara* (Ponjikara), is a quiet residential area within the growing commercial complex of Cochin. It was for long the seat of the British Resident, whose palatial Bungalow or Residency (Bolghatti Palace) still exists at its southern extremity and is used as a First Class Tourist Bungalow by the Tourist Department of the State. Washed on three sides by the placid waters of Ernakulam Kayal the Bolghatti Palace is a star attraction for tourists. In 1909 the Palace along with the surrounding area was given on lease to the British for a fixed rent of Rs. 6,000 per annum. The Bolghatti Palace was built by the Dutch in 1744, but several additions and improvements were made subsequently. Besides the commodious and well-decorated bed chambers there is a well-furnished lounge in this two-storeyed bungalow. Some historical portraits can be seen hanging on the walls. The rooms, spacious and well-furnished, open into a large and airy verandah wherefrom the tourist can watch through the thick foliage of trees lining the waters edge, the colourful tropical sunset far out in the Arabian Sea and the even more colourful dusk spreading its blankets over the Cochin Harbour and turning the whole area into a fairy land of lights and shades. There is a well-laid Golf link, the only one of its kind in Cochin, adjoining the Palace. For pleasure trips the Palace has its own motor boats. A separate landing ghat has been constructed in front of the Palace for the exclusive use of those occupants who would like to go on

cruising in the backwaters. The question of converting the Palace into a big Hotel is engaging the attention of the State Government.

The Bolghatti Island is supplied with protected water by the Ernakulam-Chowara Water Works, the water being carried to the Island by a separate 12" submarine-cum-land main. The Island comes within the jurisdiction of the Vaipin N.E.S. Block.

Steam launches are frequently plying between Bolghatti and Ernakulam and it takes only fifteen minutes to reach the Island. Small dug-out canoes or *machuvas* are also frequently used as a cheap means of transport in the backwaters here.

Chennamangalam (Parur Taluk), (10° 10′ North Latitude and 76° 10′ East Longitude)

A village on the banks of the Periyar river about six miles above its mouth, Chennamangalam is famous as the seat of the Paliath Achan, the hereditary Prime Minister of the erstwhile State of Cochin from about 1630 to 1809. The name 'Chennamangalam' is said to be the corruption of the word "Jayandamangalam" or more probably "Churnamangalam", Churna being the name of the river Alwaye at the place where the village is situated.[1] On the eastern side of the village is a hill at the foot of which there lived for long a small, but old Jewish community. Chennamangalam has been one of the chief centres of the Jews in Kerala and there is a Black Jews' Synagogue in the old Jewish colony even today. However, the vast majority of the Jews have migrated to Israel and there are practically no Jewish families left here at present. In the vicinity of the Jewish colony once stood the famous Vaipicotta Seminary built in the 16th century by the Portuguese for the instruction of Syrian youth in Syriac. The remains of the Seminary are still visible. It was in this Seminary that Archbishop Menezes prepared the Acts and Decrees of the famous Synod of Diamper (1599). There is an old Syrian Catholic Church near the ruins of the Seminary even now. Established in 1201, it was later rebuilt in the Portuguese style. Near the Synagogue and the Church may be seen a temple and a mosque. The temple is dedicated to Krishna and is situated near the historic ruins of the *Kottaikovilakam* which was the seat of the Kshatriya chieftains of Villarvattam.[2] The Jewish and

1 *Ancient Kerala*, Komattil Achutha Menon, P. 57
2 For details see Chapter on History

Muslim cemeteries are located very near to the temple premises. The existence of the Synagogue, the Church, the Mosque and the Temple in very close proximity to one another provides ample proof of the prevalence of communal harmony in this part of Kerala in olden days.

Another interesting institution in Chennamangalam is the ancient Kunnathali temple. It is owned by the Paliyam family and is now in a dilapidated condition. The main deity here is Siva. In the premises of this temple may also be seen a Vishnu shrine and several others dedicated to minor deities. A peculiarity of the temple is that Brahma and the *Navagrihas* (Nine Planets) are also among the deities consecrated here. There is also a temple of the Gowda Saraswath Brahmins in Chennamangalam, viz., the Venugopala Krishna temple.

The old residential buildings of the Paliath Achan and the members of his family may be seen in Chennamangalam even today. One of these buildings known as the *Kovilakam* is believed to have been built for the Paliath Achan by the Dutch. Very near to the residential buildings may be seen the temples of the Paliyam family, viz.,Puthiya Thrikkovil dedicated to Siva, the Jayandan Thrikkovil dedicated to Krishna and a Bhagavathi temple.

Chennamangalam has figured in the history of the State also in connection with the battles waged by the rulers of Cochin. In 1757 it was taken by the Zamorin of Calicut and in 1790 it was overrun by Tipu Sultan who destroyed several temples and houses.

Chennamangalam is an important centre of handloom weaving and coir making. The handloom clothes woven here are noted for their fine texture and have been very much in demand. Articles of bell-metal work are also produced here. Deposits of China clay have been found about the place. An annual fair called *Mattachanda* is held here on the eve of the Vishu day and the special feature of it is that the barter system still prevails to some extent in the transactions that take place on the occasion. A Government High School is functioning in Chennamangalam. There is a Police Out-post here.

Chottanikkara (Kanayannur Taluk)

An important centre of Hindu pilgrimage in the District, Chottanikkara is a village eleven miles east of Ernakulam town. The place is famous for its Bhagavathi

temple. It is beautifully situated on the crest of a hillock. The temple is well known all over Kerala and it attracts thousands of worshippers from all parts of the State and outside. The popular belief is that regular worship at this temple for specified periods has the effect of curing certain diseases like hysteria. It is a common spectacle to see the insane men and women who visit the temple in large numbers engage themselves in hysterical dancing during prayer time. For the accommodation of pilgrims who have to reside here temporarily for worship several buildings have been constructed in the vicinity of the temple. Oil paintings can be found on the walls of the *Vimana* of the temple. *Navarathri* is celebrated on a grand scale at Chottanikara and many prominent arts are staged on all the nine days, attracting huge crowds every day. There is a private Hospital near the temple, viz., the Sir Dorabji Tata Trust Aided Hospital. The Chottanikkara Medical Relief Society is running a Family Planning Clinic at the place with the aid of the Government. A Tailoring and Garment-making Centre is also functioning at the place.

Chowara (Alwaye Taluk), (8° 20′ North Latitude and 77° 00′ East Longitude)

Situated on the northern bank of the Alwaye river, Chowara is about five miles from Alwaye. It used to be the summer resort of the Cochin royal family and there is an old palace here. Chowara is the site of the Water Works supplying drinking water to Ernakulam, Mattancherri and Cochin Harbour. Rattan work and making of mats are the chief industries of this area. There are five temples, two churches and three mosques. Chowara has two Government and private Lower Primary Schools. A Government Dispensary is functioning here. The place comes within the area served by the Ankamali N.E.S. Block. There is also a Railway Station at Chowara.

Cochin Harbour and the Willingdon Island (Cochin Taluk), (9° 58′ North Latitude and 76° 14′ East Longitude)

Cochin is one of the finest natural harbours in the world. In view of the bewitching natural scenery, with its lagoons and backwaters bordered with Kerala's ubiquitous coconut palms, Cochin Harbour has been called the "Queen of the Arabian Sea" and the "Gateway of South India".

Apart from being the nerve-centre of commerce and trade, Cochin is the only all weather harbour on the West Coast south of Bombay, affording a safe anchorage to ships. Until the twenties of this century, Cochin was functioning as no more than a mere roadstead. Steamers and liners laid anchor in the open sea about 3 to 4 miles away from the harbour mouth. An Englishman, Sir Robert Bristow, is the architect of the modern Cochin Harbour. The first development works of the Cochin Port started in 1926 and by 1929 an approach channel 450 feet wide and 3½ miles long, was cut across the bar connecting the harbour mouth with the deep sea. The present Willingdon Island, extending about 780 acres in area and accommodating the wharves, railway yards, sheds, warehouses, etc., was reclaimed from the backwaters. The island named after Lord Willingdon, the then Viceroy of India, took its present shape in 1941. It is about four miles long with an average width of one-fourth of a mile. The total population of the island according to the Census of 1961 is 11,121 (8,221 males and 2,900 females).

Like the twinkling gem on a diadem lies this man-made island on the ever blue Ernakulam Kayal. The town of Ernakulam lies to the east of the Willingdon island and Mattancherri and Fort Cochin towns to the west. The island is connected by rail, both broad guage and metre guage, the latter linking it directly to the inland regions where the bulk of exports from Cochin, viz., tea, spices, pepper, etc., are produced while a National Highway-cum-Railway Bridge known as Venduruthi Bridge joins the island to Ernakulam. Mattancherri on the other side is connected by another bridge. There is an Airport in the island. The Indian Airlines Corporation operates from here daily services connecting Cochin with Bombay, Trivandrum, Coimbatore, Bangalore and Madras. The Cochin Harbour Terminus Railway Station, the starting point of the Cochin Express, is just a few yards away from the quays. Administrative buildings, first class hotels and restaurants such as the famous Malabar Hotel, the Government of India Tourist Information Office, the branch office of the Kerala Travels, curio shops, branches of almost all the leading banks of India, go-downs of the Union Ministry of Food, Dry Dock and Harbour Workshop, housing colonies for the staff, a school and playground for the children of those living in the colonies, places of worship (Stella Mary's

Church, for example), parks, a hospital etc. are some other highlights in the island. An offshore fishing station is being constructed at a cost of Rs. 30 lakhs on a plot of 4.2 acres of land. It would function as a branch of the Central Marine Fisheries and Research Laboratory and give training to 60 fishermen at a time in boat building, marine engineering, gear mechanism, etc. Of the two meteorological observatories in the District one is located in the island.

Besides affording a bird's eye view of the coasts, fringed as they are with clumps of coconut palms, stretching all around, one can see from the island the Chinese fishing nets standing out at the harbour mouth as if they are saluting the incoming and outgoing ships. Merchantmen and men of war anchored on both sides, huge oil tankers, discharging their cargo from midstream through pipes laid aloft across the backwaters, country crafts, both big and small, fishing boats in their clusters - these are some of the sights one can enjoy from the promenade.

The Willingdon Island is divided into two zones - the defence and the civil. The Airport is manned and controlled by the Navy. The civil side including the Port is under the control of the Cochin Port Trust. The Customs House and also many other Central Government establishments and offices are situated here. Plots of land are given on 30 to 99 years of lease to business houses, and for those services which are essential for the life on the island. In contrast to the suffocating atmosphere in the towns of Ernakulam and Mattancherri flanking the Willingdon Island, the atmosphere here is healthy and relaxed. Motor boats and small rowing boats are the conveyances employed by Government and Company employees, workers and visitors, to reach the island. There are four Police Stations here viz., the Harbour Railway, the Harbour Crime Branch, the Land Security Branch and the Water Security Branch.

Edappilli (Kanayannur Taluk), (10° 00' North Latitude and 76° 15' East Latitude)

A railway station seven miles to the north of Ernakulam and an important place on National Highway 47, Edappilli was known to the Portuguese and Dutch writers as "Repolim". According to the Census of 1961 it has a population of 30,377 (15,244 males and 15,133 females). It was once the capital

of a principality called Elangallur Swaroopam which was ruled over by a Namboothiri dynasty whose dominions covered the regions of Cochin and Mattancherri. At the turn of the 15th century the administration of these dominions was transferred by the Edappilli chieftain to the Raja of Cochin who was his son. The Edappilli chieftain's successors tried to regain the tract and this dispute always made them the enemies of Cochin in her wars with the Zamorins. The principality was subject to a number of Portuguese invasions, those by Pacheco and D'Souza in 1536, being the most terrible. In 1740 the Edappilli chieftain entered into an alliance with the Dutch East India Company. It is said that Marthanda Varma, the ruler of Travancore (1729-58), spared this principality on account of the chieftain's spiritual way of life. The chieftain continued to exercise sovereign powers till the end of the first quarter of the 19th century. In 1820 the East India Company placed Edappilli under the Raja of Cochin. But in 1825 at the request of the chieftain it was transferred to Travancore. Edappilli has to-day an old palace built in the Kerala style of architecture.

The Roman Catholic Church at Edappilli which comes within the Archdiocese of Ernakulam is an important centre of Christian pilgrimage. Founded in 593 A. D. this church dedicated to St. George draws thousands of pilgrims not only during the principal feast in May but throughout the year. Here there is a well the water of which is believed to have miraculous curative power and hence many use this water with veneration. History records that a session of the Synod of Diamper (1599) was held here. The main *nercha* (offering) in this church is the cock.

Edappilli is the birth place of the illustrious bard of Malayalam literature, Changampuzha Krishna Pillai. The tomb of the poet is situated in Edappilli North village.

A Public Health Centre is functioning here. Edappilli has a Government High School. The Primary and Basic Schools here number seven. A Teachers' Training School has also started functioning here very recently. Edappilli has a Sub-Registry office too. A Telephone Exchange was opened here in January 1962. There is also a Police Outpost at the place.

Eloor (Parur Taluk)

Eight miles from Alwaye on the Periyar, Eloor which forms part of Varapuhza Panchayat was just an obscure, neglected and forlorn village till a few decades ago but today it is humming with activity of every description. The area is also called Udyogamandal. There are very few places in the industrial map of Kerala which are so important as Eloor. In its leap from obscurity into the vanguard of the country's industrial progress one can have a glimpse of Eloor's contribution in the building up of the economic sinews of the State and of the country. But what strikes the visitor most is the delightful blend of modern excitement and the boom of industrial civilisation co-existing with the ever-captivating rural charm in its lonely and moody countryside.

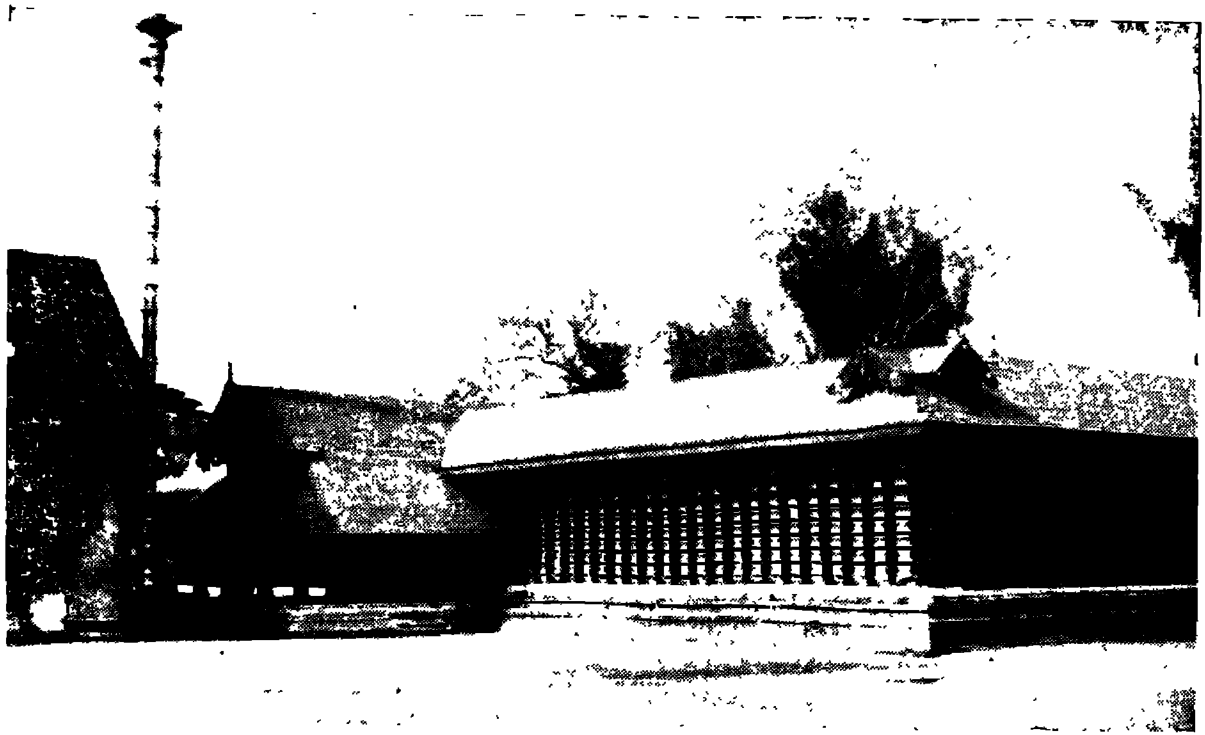
The people of Eloor and of Kerala owe not a little to the farsighted Dewan of Travancore, Sir. C.P. Ramaswami Ayyar, for having chosen this ideal spot as the nucleus of Kerala's industrial base. The Indian Aluminium Company was the first industrial concern to be set up at Eloor. It was founded in 1942. The Fertilisers and Chemicals, Travancore (FACT) Ltd., which put on the market the first Indian made Ammonium Sulphate, was planned and erected in 1944. The FACT is, perhaps, the biggest industrial unit of Kerala. Inside the factory one can see an array of queer modern machinery operating round the clock. The top attraction is the Oil Gasification Plant installed during the second stage of the expansion of the FACT. A major industrial combine that has sprung up by the side of the FACT is the Travancore-Cochin Chemicals (Private) (T.C.C.) Ltd., which manufactures caustic soda, chlorine, hydrochloric acid etc. This factory went into production in 1954. The Hindustan Insecticides Ltd., the Indian Rare Earths Ltd., and the Travancore Ogale Glass Manufacturing Company, Ltd, are the other industrial concerns in the area. In the near future more industrial units are likely to be located at Eloor largely because of the presence of the FACT - TCC industrial complex. A cement factory and a zinc smelter plant are coming up. The Carborandum Universal, Rallis, Mysore Fertilisers and Aspinwall are the other well-known companies which are putting up new units in the neighbourhood. In recent years the face of Eloor has changed beyond recognition. Good roads, educational institutions,

sports clubs, games associations, cinema theatres, commercial establishments, dispensaries, book stalls, etc., have all sprung up in the area in the wake of the steady progress of industrialisation. A Police Station has been set up here. There is a proposal to convert the whole area into a Township in view of the existence here of urban conditions and presence of important institutions.

Ernakulam (Kanayannur Taluk), (9° 55′ North Latitude and 76° 15′ East Longitude)

A beehive of industrial, commercial and trading activity, the Municipal town of Ernakulam, the former capital of Cochin State, is situated 138 miles (222 kilometres) away from Trivandrum, on the banks of the Vembanad Lake, the biggest lake in Kerala. It is accessible by all routes - backwaters, sea, road, rail and air. The town comprising the villages of Ernakulam, Elamkulam and a part of Cheranellur, covers an area of 10⅞ square miles and has a population of 117,253 (60,271 males and 56,982 females) according to the Census of 1961. The density of population of the town is 10,777 per sq. mile.

The story of the origin of Ernakulam town is closely related to the story of the origin of the Siva temple situated in the centre of the town. According to tradition the idol of *Sivalingom* enshrined in the temple was brought here by Nagarshi who spent his last days in the place where the temple is situated now. Nagarshi was the disciple of Kulu Muni, a *Sanyasin* in the Himalayas, his original name being Devalan. One day he killed a divine baby serpent, and his *Guru* who became angry cursed him to become serpent-faced. From then he was known as Nagarshi. For expiation of his sin the Nagarshi went to the Mandara mountains and there a voice from above bid him to make for a place called Bagularanya where he would be able to find a Siva idol. He went to that place and got the idol which was till then guarded by a divine serpent. With that idol he went to Rameswaram and on his return he camped at a sandy spot near the sea on the western side of the Sahyadri mountains. He placed the idol on the ground but after sometime it would not move from the earth. At this place he secured deliverance (*Moksha*). The place came to be called Rishinagakulam. An idol of Siva-Parvathi also emerged from the earth on the same spot. Some pious people of the



SIVA TEMPLE, ERNAKULAM—AN INSIDE VIEW

place constructed a temple there to house these idols. About the idol which Nagarshi brought the tradition is that it was made by Arjuna when he came to Bagularanya to worship Lord Siva.

Among the shrines inside the Ernakulam temple the presiding deity is, of course, Lord Siva. The central and northern ones are described as *Swayambhu* (Self-born). On the southern side there is a shrine of Lord Ganesh. Inside this shrine there is a *Naga* (serpent) idol of bell metal and a very interesting story is told about this. It is stated that it is a grateful offering made about 200 years ago by the sole issue of a Namboothiri family of whom it was prophesied that he would die of cobra bite in his sixteenth year. He was, however, miraculously saved by the presiding deity of the temple when he was about to be struck down by a cobra which pursued him into the temple premises in which he had sought asylum.

The annual festival in the Ernakulam temple is conducted for eight days in the month of January. The festival is heralded by gaiety, fanfare and decorations everywhere. Tender leaves of the coconut trees adorn the front of every Hindu home. The courtyards are decorated with *kolam* in the traditional way. This is to welcome the presiding deity of the city "Eranakulathappan" who will visit every house during one of these days to receive the offerings of paddy, fruits, jaggery, flowers, etc. All the paraphernalia and splendour characteristic of any temple procession and festival can be seen during the festival days here in Ernakulam. The idol is taken round on a caparisoned elephant with beating of drums or *nadaswaram* music for what is known as *parayeduppu* once in a year and that is done during the festival days. The festival is rounded off with the *Arat* procession when the deity would be taken out for a sacred bath in the temple tank. The main features of the festival are a variety of programmes of music concerts, *Kathakalakshepams*, *Kathakali*, etc.

In addition to the Siva temple, there are some other temples also in the town. The most important of these are the Krishna temple at Ravipuram, the Devi temple at Valanjabalam, the Hanumankoil near the Siva temple and a temple dedicated to Mariamman. A new temple dedicated to Subramonia is being built near the main Siva temple.

The Gowda Saraswath Brahmins have their own temple in the town, viz., the Ernakulam Thirumala Devaswom. Ernakulam has a number of churches belonging to Latin Catholics as well as Syrian Catholics. Among the churches one of the most important is the St. Mary's Cathedral belonging to the Archdiocese of Ernakulam. It was founded in 1112 A. D. The Archbishop of Ernakulam, the head of the Syro-Malabar Church and the Archbishop of Verapoly, the head of the Latin Catholic Church, have their headquarters in the town. In addition to the churches, the town has its mosques and synagogues too. Recently a Sikh Prayer Hall *Gurudwara* has also sprung up at Thevara in the southern extremity of the town.

The affairs of the town are managed by a Municipality. The Ernakulam Municipality was constituted about the middle of 1910. The total length of roads including Trunk Roads in the town is 67 miles. All the roads except the Mahatma Gandhi Road (Seventy-Feet Road), Shanmughom Road, Banerji Road and Broadway which are under the control of the Public Works Department are maintained by the Municipality. Under this Municipality there are also a Rest House, three cremation grounds and a Town Hall. The Town Hall situated near the Ernakulam North Railway Station is the venue of public meetings and variety entertainments. The important parks in the city are the Subhas Bose Park, the Tilak Park and the Annie Besant Park provided with such amenities as children's play centres, radio sets etc. The avenue trees planted on either side of the Broadway and the Banerji Road provide cool shade to the pedestrains.

One of the most famous water carnivals or regattas of Kerala is held in the Ernakulam Kayal during the Onam festival. Apart from the decorated snake boats participating in the race a variety of other boats and vessels fill the channel on this occasion. More than a lakh of people from all parts of the State and outside turn up to witness this colourful pageant in which more than fifty boats participate. Boats are also hired by enthusiastic spectators. Before the boat race starts there is an impressive fly past of the aircrafts stationed at the Cochin Naval Base. A dove is released to mark the inauguration of the race. The Huzur Jetty and the Ram Mohan Palace Jetty are the limits of the 'race course'. Apart from this grand Onam

attraction, an annual boat race is conducted between Cochin and Alleppey (a distance of 60 miles) under the auspices of the Indian Navy.

Though Ernakulam is now stripped of all the pomp and splendour characteristic of a royal capital, its importance has increased considerably in recent years by virtue of its natural charm and speedy industrialisation. The town limits extend from Thevara to Kaloor and from Katavanthara to Pachalam. The roads and lanes in the town run almost parallel. The Mahatma Gandhi Road or the Seventy-Feet Road, the widest road in the town, extends from Thevara in the south to the Banerji Road in the north. On either side of this road which forms part of the National Highway 47 streamlined and modern buildings are taking shape almost every day. But the most charming road is the Shanmughom Road running along the waterfront. It is on this road that such important institutions and edifices as the Palace of the Archbishop of Ernakulam, the Menaka Theatre, the Sealord Hotel, the General Post Office and some of the town's ultra-modern hotels are situated. The Ram Mohan Palace, the seat of the Kerala High Court, situated at the northern tip of the Shanmughom Road, was erected during the Dewanship of Sir Shanmughom Chetti. It is near the Ram Mohan Palace that the Shanmughom Road joins the Banerji Road which extends up to the Ernakulam Town Railway Station (the former North Station). The Town Hall is situated at the eastern end of the Banerji Road.

The Broadway, the narrow lane lying to the east of the Shanmughom Road, is the main shopping centre in the town. Here one can find old and quaint shops existing side by side with most up-to-date shopping corners. Roadside vendors can also be seen squatting by the side of some big shops. Beyond the Broadway along the well-laid out road proceeding in a southerly direction are the Siva temple, the General Hospital, the Collectorate, the Municipal Office and some of the important Colleges. On the western side of this are the beautiful parks where the people gather to while away the pleasant evening hours. There is a Park originally named after Lord Irwin, a former Viceroy of India, but since renamed as Subhas Bose Park. North of the Boat Jetty there is the Tilak Park and further north the Annie Besant Park mainly intended for women and

children. From the parks one can have a splendid view of the Cochin Harbour more beautiful in the night than in the day.

The Rajendra Maidan, the political nerve-centre of Ernakulam, is on the western side of the ancient Siva temple. The Krishna Vilas Palace adjacent to the temple which was till recently a Guest House is now under the Cochin Palace Administration. Statues of the two former Maharajas of Cochin can be seen nearby.

The Durbar Hall Road running from the Krishna Vilas Palace to the east towards the Ernakulam South Railway Station (Ernakulam Junction Railway Station) is named after the Durbar Hall where the former Cochin rulers used to hold their Durbars with all royal panoply and fanfare. To-day the Durbar Hall is the headquarters of the National Cadet Corps. Another Hall, the Thottakkat Dewans Memorial (T. D. M.) Hall, belonging to the Ernakulam Nair Karayogam, provides sitting accommodation to about 1,000 persons. With the opening of the Ernakulam-Quilon Railway the importance of Ernakulam South Railway Station as a vital junction has considerably increased.

The industrial capital of Kerala, Ernakulam and its suburbs are fast passing through an exciting phase of industrial expansion. With the giant projects like the Fourth Oil Refinery, the Second Ship Yard and other major industrial combines springing up in and around the town, the influx of people from other parts is naturally on the increase. All this as well as the existence of one of the finest Harbours in the East and the Naval Base and Defence establishments have given this town a cosmopolitan outlook. One finds here peoples of all communities—Hindus, Christians, Muslims, Jews and Sikhs. In the course of the last few years the population has increased and industrial and commercial activities have expanded phenomenally. But conditions of housing, especially for middle class, are far from satisfactory. The crying need of Ernakulam to-day is a grand building programme—building for the middle class and colonies for the workers and poorer sections. In Elamkulam area within the municipal limits reclamation of 120 acres of land is over. This area is to be utilised for construction of residential quarters. The National Hignway at Kaloor is being widened as part of the plan to remove the bottleneck of traffic congestion.

There are many modern hotels on the Mahatma Gandhi Road, the main artery of Ernakulam. The Grand Hotel is the most important of these. It provides European and Indian dishes and has air-conditioned bar and air-conditioned rooms. Other luxury Hotels in the city are the Sea View Hotel, International Tourist Home, Hotel Embassy, the Woodlands and the Bharat Tourist Home. But the most magnificent of all the Hotels is the Sealord Hotel, an eight-storeyed sky-scraper, which has come up in the Shanmughom Road. It is one of the tallest buildings in South India and it provides a panoramic view of Ernakulam town and suburbs from the top.

The Guest House at Ernakulam is situated near the St. Teresa's Convent. Formerly the Dewan's House, it provides first class accommodation and is under the Tourist Department. Opposite to the Guest House is the P. W. D. Travellers' Bungalow of the Class II category. There are 24 double rooms here and catering is provided.

Ernakulam and its outskirts have always been a flourishing centre of copra and coconut oil industry and this gradually gave rise to the premier industrial concern in the area, namely, the Tata Oil Mills. A pioneer in the field of hydrogenation industry, this factory today produces soaps, glycerine, *vanaspathi*, hair oil, shampoo, etc. The factory has sales offices in all major cities of India.

Ernakulam is the seat of the High Court of Kerala. It is functioning in the Ram Mohan Palace at the northern end of the Shanmughom Road. The other courts in the town are the District Judge's Court, the Additional District Judge's Court, the Sub-Court (two benches)--all of the civil branch. On the criminal side are the Sessions Coure the Additional Sessions Court, the Assistant Sessions Court (two benches), the District Magistrate's Court (Judicial), the Additional First Class Magistrate's Court, the Sub-Magistrate's Court (Second Class) and the Bench Magistrate's Court. The headquarters of the District Superintendent of Police, Ernakulam has three Police Stations—the Ernakulam Town North Police Station, the Ernakulam Town South Police Station and the Ernakulam Cusba Station.

The headquarters of the Indian Central Spices and Cashewnut Committee is at Ernakulam. A Research Station for the Committee has been set up on a 100 acre

plot of land near Ernakulam. The Coir Board and the Indian Central Coconut Committee have also their headquarters here.

A prominent educational and cultural centre, Ernakulam has a number of Arts and Science Colleges scattered in different parts of the town such as the Maharaja's College, the St. Albert's College, the St. Teresa's College and the Sacred Heart's College at Thevara. In addition, there are professional colleges such as the Law College and the St. Joseph's Training College for Women. Among the High Schools in Ernakulam mention may be made of the S.R.V. High School, Government Girls' High School, St. Augustin's High School, St. Teresa's Convent Girls High School, St. Mary's Convent Girls High School and Sacred Heart High School, Thevara. The Ernakulam Public Library is one of the oldest institutions of its kind in Kerala. Apart from these educational and cultural institutions there are a number of leading voluntary service organisations, arts clubs, associations, etc., in the town. Among them are the Y. M. C. A., the Y. W. C. A., the Rama Varma Union Club and the Lotus Club.

There are four cinema theatres in the town, viz., the Menaka, the Padma, the Laxman and the Sridar. The last mentioned one is a fully air-conditioned cinema theatre which started functioning in March 1964.

Fort Cochin (Cochin Taluk), (9° 55′ North Latitude and 76° 15′ East Longitude)

Bounded by the Arabian sea on the west, by the backwaters on the south and by the municipal town of Mattancherri on the east, Fort Cochin, formerly British Cochin and part of the erstwhile Malabar District of Madras State, is the smallest municipal town in Kerala. It has an area of 1.01 sq. miles and a population 35,076 inhabitants (17,488 males and 17,588 females) (1961 Census). The density of population here is one of the highest in India and the highest in Kerala, viz., 32,478 persons per sq. mile.

Perhaps the first reference to Cochin is made by Ma Huan, a Chinese Muslim, just six decades after the geological change of 1341 resulting in the formation of the natural port of Cochin. In 1440 Nicolo Conti, the Italian traveller made this observation:—"China was a good place to make

money in and Cochin to spend it at". The modern history of Fort Cochin is nothing but the story of the rivalry among the European powers for the mastery of the West Coast. Fort Cochin is the earliest European settlement in India. On December 24, 1500, a Portuguese fleet under the command of Pedro Alvarez Cabral anchored here. It was the second Portuguese expedition to India sent by the King of Portugal to follow up the earlier discoveries made by Vasco da Gama (1498). The Cochin Raja, the hereditary and sworn enemy of the Zamorin, received the Portuguese with open arms and afforded them all facilities for trade. Cabral then sailed off with cargo, leaving a few Portuguese in charge of the small factory he had established. In 1502 Vasco Da Gama himself landed at Cochin and concluded a treaty of commerce with the Raja. On his departure the Zamorin invaded Cochin, and the Raja had to take refuge with the few Portuguese factors in a small fort in Vaipin. The timely arrival of Francisco de Albuquerque with a fleet of six vessels on 2nd September 1503 raised the siege and the Portuguese soon built a fort at the mouth of the river on its south bank for the protection of their trade. The fort dignified by the name of Manuel, the King of Portugal, was the first European fort in India.

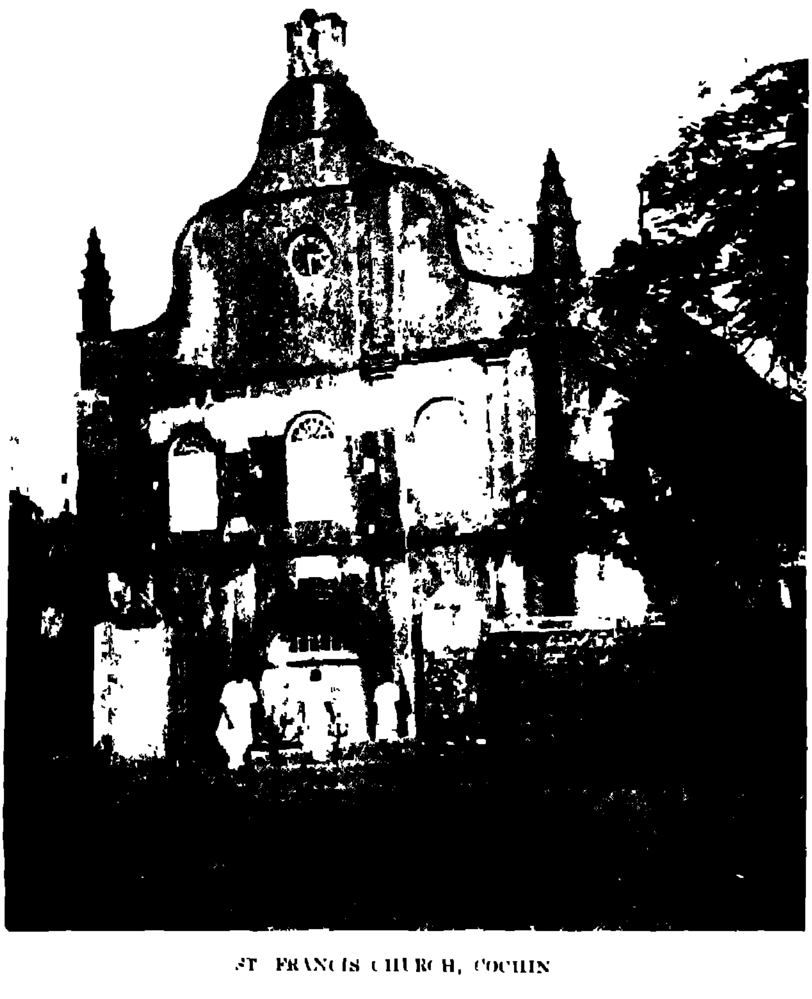
Until Goa was built Cochin continued to be the main settlement of the Portuguese and was regarded as the seat of the Viceroy of all Indies. The first Viceroy, Francisco de Almeida arrived in 1505. In 1524 Vasco da Gama paid his second visit to Cochin, but this time he came only to die. St. Francis Xavier passed through Cochin on his way to Cape Comorin for Missionary enterprise, and in 1557 at the request of Sebastian, the King of Portugal, one of the churches of Cochin, Santa Cruz, was raised to the dignity of a Cathedral by a bull of Pope Pius IV. In 1577 the first book printed in India was issued at Cochin by the Society of Jesus. In 1585 the town was visited by the English traveller Ralph Fitch, who with a band of adventurers came to India by way of Aleppo, Baghdad and the Persian Gulf. In 1634 with the permission of the Portuguese a small factory was opened at Cochin by the English East India Company.

During this period Cochin was a centre of international trade and was second only to Goa among the Portuguese pockets. In 1661 the Dutch under Van Goens appeared

on the scene and occupied Vaipin, where they established a small fort, called Fort Orange. After a series of battles the Portuguese eventually surrendered in January 1663. The English had to retire to Ponnani.

Cochin remained under Dutch control for over a century and a quarter during which period they did much to improve the amenities of the town—a benevolent act which is in striking contrast to the acts of vandalism wrought upon the remains of the Portuguese rule. All the Portuguese and Spanish priests were expelled and many of the convents and churches destroyed except the church of the Franciscan Friars, which they converted into their own chapel and the cathedral of Santa Cruz which they retained as a store house. The Roman Catholic community left the town *en bloc* and refused to have any truck with the Dutch in any field. But finally they met half-way and the Catholics were allowed to erect a church in Vaipin. The church now existing in Vaipin was accordingly built and dedicated to "Our Lady of Hope". The altar and old screen of the church are said to have once belonged to the Church of St. Francis. In the later years of the seventeenth century the famous *Hortus Malabaricus* was compiled at Cochin by a Carmelite Monk, named Mathaeus, under the auspices of the Dutch Governor, Van Rheede. In 1697 the old Portuguese fort was rebuilt to suit the needs and conveniences of the Dutch.

In 1795 Cochin passed under the sway of the English. The English excelled their predecessors in committing atrocities. Fearing of a possible restoration of Cochin to the Dutch, they blew up the Cathedral of Santa Cruz, the fort, some of the quays and best houses in the place. The massive buttresses which are so conspicuous a feature of the town are said to have been put up at this time to shore up the houses whose walls had been shaken by the force of the explosion. In the same year Dr. Buchanan visited the town and obtained from the Jews and Syrian Christians some valuable manuscripts, notably a Syriac copy of the Bible and a copy of the Pentateuch on goat skins. All the manuscripts collected by Buchanan are now in the University *Library* at Cambridge. During the revolt of 1808-09 the town was successfully defended by the British troops under Major Hewitt.



ST. FRANCIS CHURCH, COCHIN

A curious atmosphere heavy with history takes hold of anyone who begins to interest himself in the life of the town. The fisherfolk here are very numerous, most of them being descendants of those converted to Christianity by St. Francis Xavier in the 16th century. The banks of the far-stretching backwaters are festooned with an incredible lace work of huge Chinese fishing nets incessantly rising and falling, plunging and emerging majestically from the water. Here in the sandy village is the Catholic Church of Our Lady of Hope, built on the site of a twelfth century church washed away, 150 years ago, by a tidal wave.

The architectural style of the buildings and the lay-out of the town mark Fort Cochin out from other cities and towns of Kerala. The influence of European architectural designs is clearly discernible in the public buildings and private houses of the town. The chief landmark in Fort Cochin is the St. Francis' Church. Built early in the 16th century, it is the oldest existing European church in India. It is "the masonry cradle of Roman Catholicism in this country as by historical repercussions it is the earliest casket of Protestantism. From this choir for the first time in Hindustan resounded the sonorous chants of Rome, as also from its pulpit was thundered out the grim gospel of Calvinism—Total depravity, Particular redemption, Irresistible grave".[1] The St. Francis' Church covers the site of St. Bartholomews, a wooden structure built by the five Friars who accompanied Albuquerque to Cochin in 1503. On the 3rd May 1506 the Portuguese Viceroy Almeida was permitted by the Cochin Raja to commence a new city of mortar and stone and above all roofed with tiles-a privilege hitherto exclusively confined to the local prince and the temples in which he did *puja*. Accordingly the mendicant order of Franciscans raised the present edifice and completed it about the year 1516 and dedicated it to St. Anthony. The change of patron saints is due to the Anglicans. Undoubtedly the most magnificent pageant enacted within this church was the burial, with all pomp and fanfare, of the navigator-soldier-statesman, Vasco da Gama. Gama's mortal remains were interned in the *capella mor* or chancel of the church, but it remained only a temporary sepulchre of that great Portuguese leader

1 *St. Francis Church, Cochin*, T.W. Venn, p. 3

for in 1540, sixteen years after his burial here, his body was conveyed to Portugal by his own son Pedro da Silva da Gama.

Though the interior of the St. Francis Church is innocent of flamboyant decorations, the links of this religious institution with the eventful and romantic past—political convulsions and the desire to leave unsullied the stamp of the glory of the different sects of the Christian faith of which the European conquerors were the champions—have made the inhabitants of Cochin highly proud of their old church. From 1510 to 1663 this church was officially called the Conventional Church of the Order of St. Francis of Assisi by the Portuguese. The Dutch who professed the Reformed Religion made some changes in the name and structure of the church and did some restoration work in 1779. After the advent of the British it was the Government Protestant Church from 1819-46. However, it was only after the substantial restoration and renovation carried out by the English in 1886-87 that this edifice became known as St. Francis Church.

Some cadjan leaf manuscripts commemorating some of the important incidents in the life of the Portuguese and Dutch settlers preserved in St. Francis Church may be of interest to students of history. The cemetery attached to the church contains tombstones with names of those many European military officers who lay buried here. That particularly crowded part of the cemetery where some of the Dutch settlers were laid to eternal rest can still be seen. That of the Portuguese had been undermined by the vagaries of the sea and had fallen into the harbour from whence it was partly dredged up again in 1925-26.

Though the vandalism of the Dutch and the English spared very few monuments and edifices of historical interest, by a stroke of luck the St. Francis Church remains even to day in an excellent state of preservation and is a top tourist attraction in Fort Cochin. The church is under the control of the Archaeological Department of the Government of India. In the great square near the church one can see imposing cottages in foreign style built by the Dutch who destroyed all the Catholic archives and buildings except the Church of St. Francis.

Other objects in the town arresting the curiosity of the historian are the Roman Catholic Cathedral with the old name Santa Cruz (Estd. 1557), the old Commandant's House

and the gate of what was once the Governor's Residence. The Coastal Battery flanking the northern side of the beach is another interesting object, but it is relatively modern, having been established by the British authorities during the Second World War. A good light house is located near the Battery. A wing of the naval installations of the *I. N. S. Venduruth* is now functioning as a basic school on the southern side of the Coastal Battery. Consequently, the western boundary of the town is completely occupied by the military and naval authorities. These defence installations have invested Fort Cochin with strategic importance.

The affairs of the Fort Cochin town are managed by a Municipality set up as early as 1866. The most important roads in the town are the Beach Road and the Amaravati Road. The Fort Cochin Municipality is conducting a ferry service between the mainland of Cochin and the island of Vaipin. This is the main means of communication between these two places, since the Fort-Vaipin area is separated from the mainland at the mouth of the Cochin Harbour. Fort Cochin has a public bus service connecting it with Ernakulam, Alleppey etc. Being a coastal town bordering on the Cochin Port water transport is very cheap, and the people generally resort to this means of transport. The most congested and thickly populated areas of the town are Calvetti, Eraveli and Thamaraparamba. But Fort Cochin is an exceptionally clean and hygienic city.

Though there is no college in Fort Cochin, there are 14 Lower Primary, four Upper Primary and four High Schools. The High Schools are Fatima Girls High School, Santa Cruz High School, St. John De Brittos' Anglo-Indian High School and St. Mary's Convent Girls High School. The chief medical institution in the town is the Government Hospital. For the treatment of infectious diseases an isolation hospital is run by the Municipality. There are no weekly markets in the town. The three daily markets are under the control of the Municipality and there are no private markets. The chief industries are baling of coir yarn, rope-making, manufacture of coir mats, mechanical engineering works and the building of boats. Among the leading industrial concerns are the Aspinwall and Company Ltd., Calvetti, Harrison & Crossfield, Madura Company Private Ltd., Pierce Leslie & Co., Ltd., etc. A host of oil and cotton mills are situated on the Eruveli Canal and on the Calvetti Road. Industrial and residential areas

in the town have been classified and installation of new factories is restricted to industrial areas only. A meteorological observatory is functioning in Fort Cochin.

Cochin is an important centre of fishing activities in Kerala. Unlike other areas fish can be caught from anywhere along the Cochin coast. One of the most attractive sights of the place is the Chinese fishing nets installed along the shores of the harbour mouth. The Central Institute of Fisheries Technology here designs experimental fishing boats for the benefit of fishermen.

Fort Cochin is the headquarters of the Cochin Taluk and a number of public offices are located here. The most important among the Central and State Government Offices are the Office of the Collector of Customs and Central Excise, the Revenue Divisional Office, the Taluk Office and the Sub-Registry Office. Besides the Cochin Cusba, Fort Cochin has a Police Station.

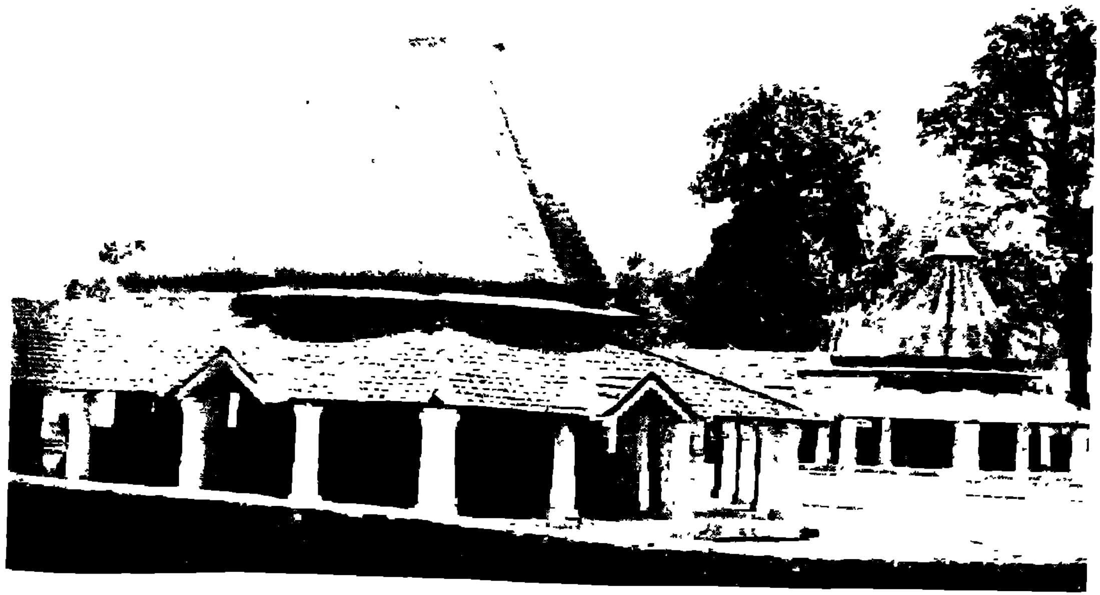
The Inspection Bungalow at Fort Cochin is on the beach and is provided with two double rooms. It belongs to the Class II category and is maintained by the Public Works Department.

There are many clubs and leading voluntary organisations in Fort Cochin such as the Y. M. C. A., the Cochin Club, the Cochin United Club, etc.

Kaladi (Alwaye Taluk), (10° 14' North Latitude and 76° 45' East Longitude)

Eight miles from Alwaye on the banks of the Periyar locally called Purna, lies the historic village of Kaladi, the birth place of Sri Sankaracharya, the great *Advaita* philosopher, who has been assigned to the period 788-820 A.D. A place of unique importance in the history of Indian thought and culture, it was for long a neglected place. But the birth place of Sankara has recently been resuscitated and Kaladi is to-day one of the famous centres of Hindu pilgrimage in India.

A plot of twenty-five acres of land which is believed to include the Kaipalli Illam, the residence of the great Indian Seer, was purchased at Kaladi by V. P. Madhava Rao, a former Dewan of Travancore and two shrines were constructed here on this site. One of the shrines is dedicated to the Acharya as Dakshinamurthi—the Absolute



KALADI THE BIRTH-PLACE OF SANKARACHARYA

as teacher. The other shrine is dedicated to Goddess Sarada—the *Ishta devata* of the Acharya. Near the shrine of the Goddess personified as learning stands a *Brindavanam* erected over the place where the body of Sankara's mother was rendered back to the elements. Both the shrines in Kaladi are built in the *Ashtapadma* style, a style that has nothing in common with that of the Kerala temple architecture. A raised platform and a terrace-shaped dome lend simplicity and grandeur to the structures. In 1910 the *pranaprathishta* of these shrines was performed by Swami Narasimhabharathi who was the thirty-third Acharya at Sringeri *pita* in direct succession from Sureswaracharya, the first disciple of Sri Sankara to be installed at Sringeri in Mysore State. Subsequently, in the days of Chandrasekhara Bharati Swamigal two Veda *patasalas* and the *agraharm* were built and endowed. Apart from these two shrines there is a small shrine dedicated to Ganapathi. The temple of Krishna situated outside the Sringeri Mutt premises is said to have been visited by Sri Sankara's mother Arya Devi for daily worship and installed by Sankara himself.

No visitor, pilgrim or tourist to Kaladi would fail to be enthralled by the picturesque scenery that surrounds him on every side. Of all the beautiful spots, the most enchanting is the river front near the shrine of Sri Sankara. "Time has not changed it, nor has custom made stale its infinite variety. It keeps on changing with the changing seasons. In summer it is a meandering stream finding its way amidst sand dunes of its own making. In the monsoon season it becomes a raging torrent rushing onwards towards the sea which is only thirty miles away. In winter one may occasionally catch sight of low-lying clouds almost floating on the river and blessing the Earth with the peace of Heaven. Whatever be the mood with which one approaches the river, whether for study, contemplation, or merely for the pursuit of the beautiful, the river front has always something to offer".[1] For bathing purposes and contemplation in solitude spacious stone stairways are laid from the courtyard of the temple to the edge of the water of the river in what may be described as one of the cleanest bathing ghats in Kaladi. But the most sacred bathing ghat is the one where Sri Sankara is said to have been caught by a croco-

1. *Kaladi, A Pilgrim Centre*, Ramakrishna Advaitasramam (1957), p. 9

dile and which ultimately prompted him to embrace monastic life. This particular ghat is held by local people to be as sacred as the Manikarnika ghat in Varanasi.

The little shrine of Manikkamangalam, where God is worshipped as Mother, situated a mile to the north of Kaladi, is also associated with the name of Sankara. Tradition has it that the pious father of the Acharya, Siva Guru, by name, was the officiating priest of this temple. It is said that the aged father once went on pilgrimage to Chidambaram and that it was here that the Lord appeared to him in a vision and foretold the birth of the great monist philosopher. It is also said that it was when his father was performing the *Rudrabhishekam* uttering the words *Namah Sankaraya* that Sankara was born and so the child was christened Sankara as the visible embodiment of the prophetic vision.

Some two miles above Kaladi, the Periyar branches off into two only to meet again in the lower reaches of the valley. Although during the monsoon both the streams are in spate normally the one near the shrine of Sankara alone is perennial. Tradition has it that originally the river was flowing along the other channel, and it was Sankara who diverted by the power of his *tapasya* the flow of water through the stream near the shrine so that his aged mother might not be deprived of her daily bath in this *Brahmavari*. The origin of the name Kaladi is also said to have emanated from this ancedote.

A short distance from the Sri Sankara College there is a little Siva temple at Vellimantulli. The place derives its name by association with a white stag that was supposed to mark the spot where a Siva *linga* lay hidden, and which the mother of the Acharya was asked to worship, when she had grown too old to go on pilgrimage to places farther away such as Tiru-Siva-Perur or Trichur, the great city of Siva.

In 1936, the centenary year of Sri Ramakrishna Paramahamsa, the Sri Ramakrishna Ashrama was established at Kaladi.[1] This institution founded by Swami Agamananda has made steady progress in recent years. A number of educational, charitable and cultural institutions have sprung up here. These include the Brahmanandodayam High School, the Sanskrit Middle School and the Ayurveda Hospital named after the Holy Mother.

1 A detailed account of the Ashrama is iven in Chapter XVIII

Details of the Ashrama are given in the previous chapter. The Sree Sankara College is another notable institution at Kaladi. It is under the management of a Trust with Sri Sankaracharya of Sringeri Mutt as its Patron. The College is located on the top of a beautiful hillock at Mattur which is known as Ramakrishnapuram after the starting of the College. A Primary Health Centre and two Grant-in-aid Ayurvedic Vaidyasalas are functioning at Kaladi in addition to the Ayurveda Hospital run by the Ashram.

Apart from the fact that Kaladi is hallowed by the birth of Sri Sankara, another claim to fame for this place is the imposing Sree Sankaracharya Bridge. Built at a cost of Rs. 20 lakhs the bridge was opened to traffic in June 1963. Also known as Thannipuzha Bridge, its opening was the fulfilment of a long cherished dream as it was for a long time the only unbridged gap in the Main Central Road.

At Neeleswaram near Kaladi there is a timber depot which sells timber in round logs to the manufacturers of plywood, matches and frames, timber merchants, building contractors, etc. In Kaladi proper, however, rattan work is the chief industry. Kaladi is a wholesale trade centre in rice and pepper. It is one of the places to be covered by the protected water supply scheme under the Third Five Year Plan. Kaladi village comes under the Ankamali N. E. S. Block. Perhaps, the biggest Sarpagandhi (*Rauwolfia Serpentina*, Benth) plantations in the world is located at Kaladi. There is also an extensive Government-sponsored Rubber plantation at nearby Manjapra.

The Travellers' Bungalow at Kaladi maintained by the P. W. D. is of the Class II category and it has twelve sets of rooms. Kaladi has also a Police Out-post.

Kallil (Kunnathunad Taluk)

Six miles away from Perumbavur, Kallil is well known for the rock-cut Bhagavathi temple situated on a beautiful hill. Originally a Jain shrine, it contains images of Jain Saints like Paraswanatha, Mahavira and saintess Padmavathi Devi. A bas-relief of Mahavira in Yogic posture attracts Jain worshippers even today.[1] There is a boulder at this place, 75' x 45' x 25' which seems to rest without

1. See Chapter II for details p 81

any proper support. The festival in this temple is during the month of Vrischikam (November-December). It begins on the day of Karthika asterism and lasts for eight days. The temple belongs to a private trustee of the place, viz., the Kallil Pisharoti. In 1965 the Government of Kerala have declared it a protected monument.

Kanjiramittam (Kanayannur Taluk), (9° 35′ North Latitude and 76° 40′ East Longitude)

A village fourteen miles to the south-east of Ernakulam, Kanjiramittam is a railway station on the Trivandrum-Ernakulam railway. The most important and beautiful of the mosques in the District is situated in this place. It is said to have been erected over the mortal remains of Shaikh Parid who spent his last days here. It was also here that the great Muslim saint Baver is supposed to have prayed and attained eternal bliss. As in the case of the Malayattur Church, this place is revered by the local Hindus as well—a phenomenon quite characteristic of and appropriate to the friendly relations which have always existed and still continue to exist between the different religious sections of the population. The *Kodikuthu* festival here which falls on the first day of Makaram (December-January) attracts thousands of devotees. The main offering (*Nercha*) at the mosque is *Chakkarakanji*.

The St. Ignatius High School at Kanjiramittam is a private institution. A grant-in-aid Vaidyasala is functioning here.

Kodanad (Kunnathunad Taluk), (11° 30′ North Latitude and 76° 50′ East Longitude)

Kodanad is the headquarters of the Malayattur Forest Division and is located on the banks of the Periyar river. Some relics of monolithic culture, believed to date back from 200 B. C. to the first century A. D., were discovered here in the course of the excavations for the Periyar Valley Canal in December 1963. The relics included a good number of terra-cotta figurines, tusks of elephants and potsherds with engravings generally available in megalithic pottery. There is a Vishnu temple at Thottuva in Kodanad. It is owned by a private trustee. The *utsavam* in this temple which falls in the month of Vrischikam (November-December) attracts large crowds from the neighbourhood. On the opposite side of Kodanad lies Malayattur.

The elephants captured from the forests of the Malayattur Forest Division are caged at Kodanad and tamed by *mahouts*. The place is noted also for its sugar cane cultivation. Kodanad has a Police Out-post.

Kolancherri (Kunnathunad Taluk)

Situated about 15 miles east of Ernakulam town, Kolancherri has an ancient Orthodox Syrian Church believed to have been built in the 7th century A. D. in the name of St. Peter and St. Paul. The new church constructed in 1961-63 in the place of the old one is an imposing edifice. It has a length of 124 feet and a breadth of 56 feet and contains several beautiful paintings. The Kadamattam Orthodox Syrian Church famous for its Persian Cross is an important centre of Christian pilgrimage which is located two miles east of Kolancherri. Some of the richest contractors of the State live at Kolancherri. The place has a Junior College (St. Peter's College) opened in 1964-65. One of the best High Schools of the State, the Rajarshi Memorial School, Vaduvukode, is located here and it has achieved the first place in the State in the S.S.L.C. Examinations consecutively for several years. There is also a Training School at the place.

Koonamavu (Parur Taluk)

Situated in between North Parur and Varapuzha, Koonamavu is a place of considerable importance to the Christians. The first Convent of the third order of Carmelites was founded here in 1866. Rev. Fr. Chavara Kuriakose Elias (1805-1871) who is an important figure in the history of the Syrian Catholic Church lived here for a number of years. The room in which he lived is kept even today. There is a Carmelite monastery here.

Kothamangalam (Moovattupuzha Taluk)

Situated eight miles away from Moovattupuzha, Kothamangalam is the headquarters of the Kothamangalam N. E. S. Block. It was once an important trading centre and carried on a large volume of trade with the Tirunelveli and Madurai Districts of Madras State. The Bodinaikannur mountain pass in the Ghats connects Bodinaikannur in Madurai District with the High Ranges and then leads on to Kothamangalam. It must have served

for long as the main life-line of inter-State trade. The place has attained great importance in recent times with the construction of the Neriamangalam-Pallivasal Road.

Kothamangalam boasts of some of the ancient churches of Kerala State. The St. Thomas Church of the Orthodox Syrians crowning a hillock is at least fourteen centuries old. There is another church, the St. Marys Church (Cheriapalli) belonging to the same community on the adjacent plain, reputed to be seven hundred years old. Both these buildings are of the usual Basilican model, but are of vaster dimensions than any other church building in Kerala. The older church was renewed and rebuilt so many times that to a visitor it may be not look as old as it should at the first sight. The conical arch on the side walls of the naves was designed by architects from West Asia. The special features of this arch form are an elliptical top supported on an opening which widens towards the base. There are still some vestiges left of the middle age influence on the exterior of the side walls and the *Madbha* (Chancel). Two elephants in wood which support a beam inside the church are noteworthy models of the skill of the craftsmen in carving sentiment in wood. The St. George's Church belonging to the Syrian Catholics is also of great antiquity.

The Branch Offices of several banks such as the Canara Bank Ltd., the Federal Bank Ltd., the Kerala Central Bank, the State Bank of Travancore etc., are functioning in Kothamangalam.

The Mar Athanasius College, Kothamangalam, is a full-fledged Arts and Science College opened here in 1955. The Mar Athanasius College of Engineering, the third institution of its kind to be started by private agencies in the State, is located in Kothamangalam. It was set up in 1961. The well-known High Schools here are the Mar Basil High School, St. George's High School and St. Augustine's High School. A Government Hospital is functioning here. There is an Auditorium in the town named Mar Basil Auditorium built at a cost of Rs. 50,000 with aid from the Central Government. Two Public Call Offices, a Police Station, a Sub-Registry Office and an Electrical Sub-Station are situated here. Oil Mills and Saw Mills form the main industries of the place.

Malayattur (Alwaye Taluk), (10° 10′ North Latitude and 76° 25′ East Longitude)

Ten miles to the north-east of Chowara railway station, and eighteen miles east of Alwaye, Malayattur is an important place of Christian pilgrimage. Malayattur literally means "the land of hills and rivers". It has a salubrious climate, and the clear waters of the Periyar flowing here over a sandy bed afford excellent facilities for bathing. More than one-half of the area of the place is reserved forest. The Catholic Church (St. Thomas Church) on the top of the Malayattur hill (Kurisumudi) is one of the most important in all Kerala. It crowns a steep hillock, which against the background of the majestic Western Ghats soaring high into the sky and the Periyar zigzagging its serpentine way through the valley below flooded with verdure presents a marvellous sight to the visitor and the pilgrim. Believed to have been hallowed by the footprints of St. Thomas, this holy place draws a mammoth concourse of pilgrims on the first Sunday following Easter in April. On the top of the 1,500 ft. high hillock there is also a life-size statue of St. Thomas. Besides the church and the statue, there are the holy cross, the cupola, the rock which shows the foot-prints of St. Thomas, the resting place for the pilgrims, the cemetery behind the church and above all, the wonderful springs which would arrest the attention of any tourist. According to tradition St. Thomas came to Malayattur by the then familiar route through some pass in the Western Ghats which linked Kerala with the Pandyan Kingdom. The Malayattur Church is regarded by some as the eighth to have been established by St. Thomas. While the northern slope of Malayattur hillock is steep, the southern side is completely wooded. Like the pilgrims to Sabarimala, sacred to the Hindus, the pilgrims to the Malayattur church climb their weary but joyous way up to the crest of the hill. Cries of "*Ponninkurusumala Mathapa Ponmala Kettom, Ponmala Kettom*" (Oh! Grandfather of the Golden Cross Hill, we ascend the Golden Hill) rend the silent air. In fact, Malayattur is as sacred to the Christians as Sabarimalai and Tirupathi are to the Hindus. The Malayattur church is said to have been once a Hindu temple which was handed over to Christians of the place because a granite Cross made its appearance spontaneously by the side of the idol. There is also a very ancient church (Estd. 900 A. D.) at the foot of the Malayattur hill. Besides, there are two temples in the village.

Rattan work, bamboo-mat making and cotton weaving are the main industries in the place. Malayattur forms part of the Ankamali N. E. S. Block. The Malayattur forests remained for a long time the principal source of raw material for the Fertilisers and Chemicals, Travancore Ltd., Eloor.

Mattancherri (Cochin Taluk), (9° 55′ North Latitude and 76° 15′ East Longitude)

Mattancherri, the commercial capital of Kerala, is situated on the backwater opposite to Ernakulam and is geographically contiguous to Fort Cochin. One of the densely populated urban tracts in the State it became a Municipality as early as 1910. The town has always been a busy centre of trade and commerce. According to the 1961 Census Mattancherri has a population of 83,896 (42,671 males and 41,225 females) and an area of 2.69 sq. miles.

Undeniably the commercial capital of erstwhile Cochin State, Mattancherri is also said to have been once its political capital. The place contains a spacious old Palace which was built and presented to the Cochin ruler Vira Kerala Varma by the Portuguese, about the year 1555. Though built by the Portuguese, it is popularly known as the Dutch Palace because of the many improvements made on it by the Dutch during their short-lived regime there. The Palace is well known for its mural paintings which are noted for their high level of excellence. These paintings represent scenes from the *Puranas*, the *Mahabharatha* and the *Ramayana*, the deities of the ancient temples of Kerala, etc. Like the mural paintings of Tanjore and Madurai, the paintings in the Dutch Palace were made in tempera, the process, colours and the technique employed being all the same. The Palace was looked upon with great importance as the coronation of the Cochin Rajas was always held here. One of the halls in the upper storey in the western wing is treated with awe and respect, for here passed away one of the Rajas of Cochin and as a mark of respect for his memory a lamp is lit there every day. There is a dark chamber in the Palace feared by many as haunted. Some people hold that the Maharajas stored their wealth here to be used when hard-pressed. Yet another story is that this chamber contained a secret underground passage to the old fort or the backwaters to enable

the inmates to leave the palace in times of danger. The Palace is now under the control of the Archaeological Department of the Government of India.[1]

Mattancherri is a cosmopolitan town. People of all nationalities, religions and castes may be seen among the permanent residents of the town. One of the most picturesque communities here is the Jews. What is called 'Jew Town' lies to the south of the Mattancherri Boat Jetty. The Jews are said to have migrated to Cohcin from Cranganore about the year 1565 A.D. to escape persecution at the hands of the Portuguese. The Raja of Cochin received them with open arms and provided them with the present site by the side of the Palace for constructing the Synagogue. The Jew Town consists of narrow lanes with "quaint houses of solid build on each side", many of which are of Dutch origin and style. Most of the houses of the Jews in these lanes have thick laterite walls, with large windows provided with seats and double shutters of glass and wood and have upper storeys with tiled roofs.

The White Jews' Synagogue, Mattancherri, which was built about 1567 is a major attraction for tourists. The floor of the Synagogue is paved with porcelain tiles presented by a merchant-prince of the Jewish community, and the tiles were specially made in China and brought here. In 1805 the Maharaja of Travancore presented a golden crown to the Synagogue. The silver lamps of the Synagogue were presented in 1808 by Col. Macaulay, the first British Resident. Even today one can see in the Synagogue the Copper Plate Grant of Bhaskara Ravi Varman conferring certain rights and privileges on the Jews. The Synagogue is administered by a trust formed by the Jews themselves[2].

In the middle of the Mattancherri Bazaar, one can find a Cross known as the Coonen Cross (Bent or Leaning Cross). In ecclesiastical history it has an important place. It was before this Cross that the Syrian Christians who were forced by the Portuguese soldiers in 1599 to accept the Pope as their spiritual head asserted their independence in 1653 and declared that they would acknowledge as their Universal Pastor none other than the Patriarch of Babylon (Nestorian Patriarch). The number of Syrians assembled

1 For details of the Palace see Chapter II

2 See Chapter II for details

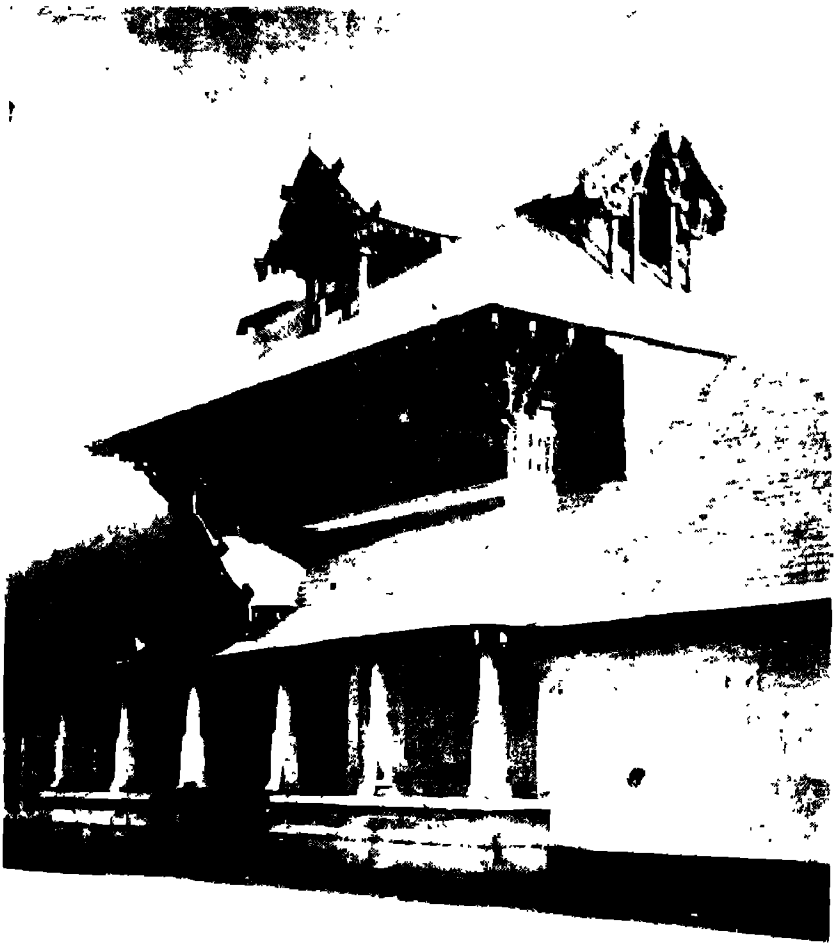
there was so great that all those who were present could not touch the Cross at once and so they connected themselves with this sacred symbol by means of ropes tied to it[1].

One of the chief attractions both for the tourists and the pious Hindus in Mattancherri is the Thirumala Devaswom Temple, rich in legend and history and unique in architectural and sculptural patterns[2]. The temple, dedicated to Sri Venkateswara or Venkatapathy of Thirumalai Hills, is the premier institution of the Gowda Saraswath Brahmins of Goan origin (locally called Konkanis) living in different parts of Kerala. The temple is more than three and a half centuries old. The site of the temple is said to be the one allotted by the Raja of Cochin to the Konkanis who migrated to the place in the 16th century to escape persecution at the hands of the Portuguese in Goa. The image of Sri Venkatapathy, according to tradition, belonged to the ruler of Vijayanagar during the prosperous days of that Kingdom in the 15th and 16th centuries. In the latter period this image believed to have been made by God (Viswakarma) himself, came to be in to the possession of His Holiness Swami Raghavendra Thirtha of the Gowda Saraswath community who brought it to Cochin in 1599 and handed it over to a devotee Sri Mala Pai. The Gowda Saraswaths of Cochin were thrilled at the sight of this resplendent image and wanted it to be installed in a temple in Cochin as the chief presiding deity of the community for worship. The image was thus consecrated in the present spot. In 1792 it was taken to Alleppey due to the persecution of the Gowda Saraswaths by Saktan Tampuran. At Alleppey it was kept in a small *Agrasala* on the bank of a canal and later it was consecrated in a temple newly built on a site donated by the Travancore ruler. In February 1853 it was brought back to Cochin by the Gowda Saraswaths and reinstalled in the old temple. *Arat* festivals in the temple are celebrated twice every year in the months of Vrischigam (November-December) and Medam (March-April). Other festivals conducted here are Karthika Purnima, Vaisakha Purnima, Ashtami Rohini, Deepavali and "Temple Car Festival" on Mahanavami day during the Navarathri.

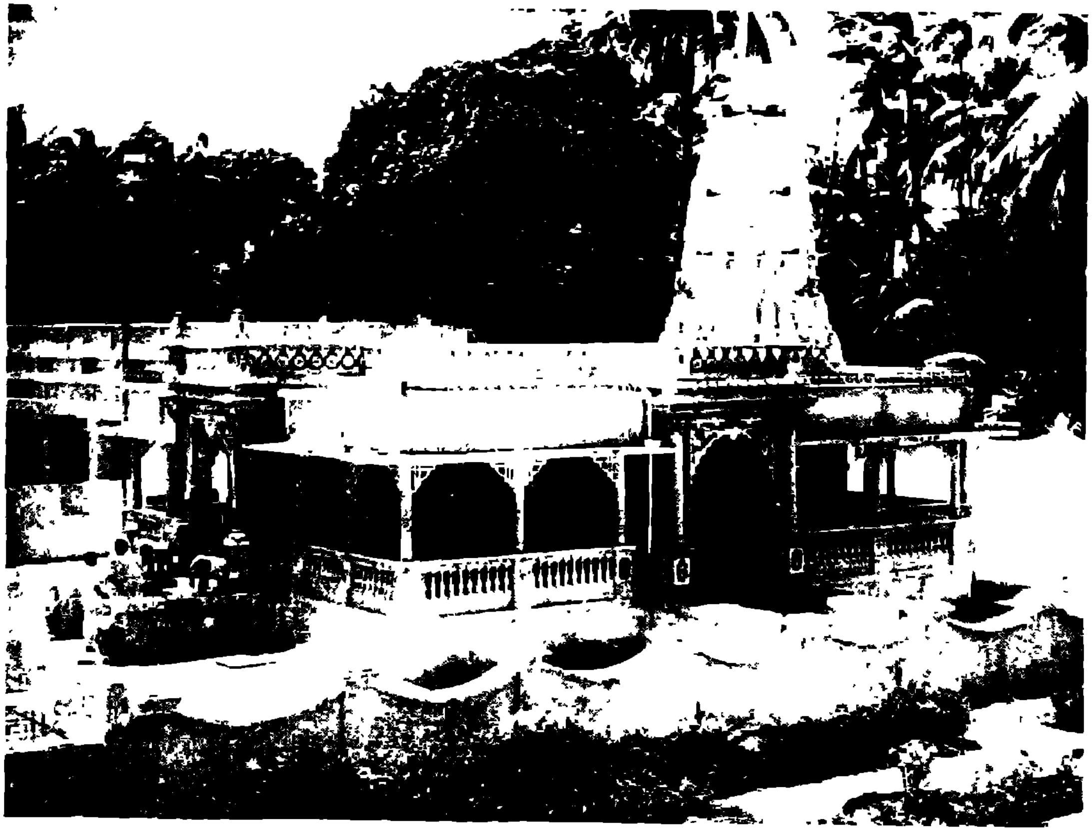
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1 See Chapter II for details

2 Details regarding the Thirumala Devaswom Temple given here are taken from the booklet on *Cochin Thirumala Devaswom Temple* (1964) by N. Purushothama Mallayya, Cochin



NORTHERN GOPURAM OF THE THIRUMALA DEVASWOM TEMPLE, MATTANCHERRI



JAIN TEMPLE, COCHIN, DEDICATED TO VARDHAMANA MAHAVIRA

The Thirumala Devaswom Temple is noted for its unique architecture. The *sanctum* is in the *Nagara* style of Hindu architecture. On the outer *Prakaras* of the main temple there are four minor temples dedicated to Sri Hanuman, Garuda, Ganapathi and Mahalakshmi. The idols of Hanuman and Garuda are about six feet in height. A gigantic *Lingam* in a temple dedicated to Siva can be noticed on the north-eastern side of the Lake Mandapam. The temple contains one of the biggest bells in India. The temple is also rich in the wood-carvings of Kerala. It is also noted for its exquisite paintings which depict stories mostly from the *Ramayana* and the *Mahabharatha*. The Northern Gopuram is of a 'Pagoda type' resembling Tibeto-Indian style of architecture. Its roof is copper plated and is two-storeyed. Attractive paintings on wood done by indigenous craftsmen depicting various scenes from the *Puranas* and the Epics can be noticed in this *Gopuram*. The temple was originally built in 1599 and some parts of it were rebuilt in 1719 and 1853. The Lake *Mandapam* situated on the north-eastern side of the eastern *Gopuram* is noted for its artistic excellence and it is a star attraction for tourists. The Lake is known locally as *Papanasam* as it is believed that a bath in the tank will relieve a person of all sins committed by him.

The Cochin Thirumala Devaswom maintains a full-fledged Higher Secondary School, a Vedic and Sanskrit *Patasala*, etc. and a *Gosala* where a large number of cattle are fed and maintained out of the Devaswom funds.

Apart from the Thirumala Devaswom there are some other temples at the place. A Bhagavathi temple forms part of the Dutch Palace while a Krishna and Siva temple each are located in its premises. Another temple of the place is the Palliparambukavu dedicated to Bhagavathi. The Jains of Mattancherri have a temple dedicated to Vardhamana Mahavira which resembles the Rajasthan temples in its architectural peculiarities.

As stated earlier, Mattancherri is an important commercial and trading centre. The big business of the town is in the hands of the Gujarathis and Kutchi Memons who have been living here for decades and have become an integral part of the population. They have their own educational cultural and religious institutions. Retail trade is mainly in the hands of the Gowda Saraswaths and Vaisyas (Vaniyans), the former being prominent in wholesale business too. The Mattancherri Bazaar is one of the most

crowded and busiest localities in the country. A great deal of business is transacted daily in pepper, ginger, cardamom, copra, coir, lemon-grass oil, tea, coffee, rubber, prawns, dried or refrigerated and a host of other Kerala produces. The warehouses belonging to the exporters of Kerala's hill produces are located here. The large number of trading and commercial establishments owned by the Gujarathis in the town testify to the existence through the years of the time-honoured commercial contact between Mattancherri and cities like Bombay and Ahmedabad. The narrow bazaar is always packed and jammed by carriages and vehicles—taxi cabs, lorries, hand-carts, bullock-carts, wagons, etc. The cyclist, however, manages to keep his feet always on the pedal all along this labyrinthine way ringing the bell all the while. The pedestrians have always to be on guard in this traffic confusion. The Bazaar Road, buzzing with hectic commercial activity, is also the site of many important banks such as the Union Bank of India Ltd., the United Commercial Bank Ltd., the South Indian Bank Ltd., the Chaldean Syrian Bank, the Cochin Commercial Bank, the Asiatic Mercantile Bank, the Bank of Cochin, etc. A host of international shipping agencies, oil mills and luxurious hotels are also located in the Mattancherri Bazaar.

Kochangadi is an important locality in Mattancherri. The Darusalam Road touching Kochangadi may very well arouse the curiosity of the research scholar. There is a striking similarity between the name of the road and Dar-es-salam, an important city on the coast of East Africa. It is probable that there must have been commercial contact between Mattancherri and Dar-es-salam in olden days. A soap factory and an ice factory are situated at Kochangadi.

The Mattancherri Municipality owns two public markets (a vegetable and a fish market) and two slaughter houses. Apart from these, there are four private markets and a private slaughter house. The Municipality also maintains a burial ground and two cremation grounds. There are also two parks.

Along with Fort Cochin and Ernakulam, Mattancherri forms one of the most densely populated urban tracts not only in Kerala but in the whole of India. According to the 1961 Census the density of population is 31,188 per sq. mile. Situated as it is adjacent to the Cochin Harbour, most of the inhabitants of the town are labourers.

There is a Government High School for Girls at Mattancherri. In addition, there is a Basic Training School. There are two General Hospitals, a T.B. Clinic and a Veterinary Hospital in Mattancherri maintained by the Government. One of the General Hospitals is for Women and Children. The Mattancherri Municipality runs an Isolation Hospital for treatment of infectious diseases. One of the Government Ayurvedic Hospitals in the District is also situated at Mattancherri. A Sub-Court, a Munsiff Court, a Sub-Magistrate Court and a Bench Magistrates' Court are functioning here. There is also a Police Station in Mattancherri town.

Moovattupuzha (Moovattupuzha Taluk), (90° 55′ North Latitude and 76° 35′ East Longitude)

The headquarters of the Moovattupuzha Taluk and Moovattupuzha Revenue Division, the municipal town of Moovattupuzha is situated at the junction of the two rivers forming the Moovattupuzha river; another tributary joins the combined river below the town. The three streams feeding the Moovattupuzha river are the Thodupuzha, the Vadakkan and the Kothamagalam, all rising on the western slopes of the Peermade Plateau. Moovattupuzha is also the headquarters of the Moovattupuzha N.E.S. Block. According to the Census of 1961 the town has a population of 22,977 (11,837 males and 11,063 females). The area of the town is 5.08 sq. miles.

On the Moovattupuzha river stands an ancient Bhagavathi temple. The deity here is believed to be very powerful. She is held in great awe and prayed to fervently as the granter of boons. In addition, there are two Siva temples and a Subramonia temple at Moovattupuzha. The Orthodox Syrian Church and the Catholic Church near the Campshed are also notable religious institutions of the place. Besides, there are two mosques in this town which has a good Muslim population.

The only historic remains in Moovattupuzha are the ruins of a fortress of the Vadakkamkur Rajas. The town is a key communication centre and a market centre of hill produce. Production of lemon-grass oil is one of the major occupations here, and this has prompted the State Trading Corporation to open a depot here for the sale of lemon-grass oil. The Moovattupuzha bridge built in 1914 is one of

the oldest concrete bridges in the State and in spite of the flow of constant and heavy traffic all along the years, it has remained intact. It was constructed at a time when reinforced concrete construction was not well in vogue in India. Beyond the bridge spanning the Moovattupuzha river is the shopping centre of the town.

Moovattupuzha is an important handicraft centre in the District, producing bell-metal articles such as lamps, vessels, *urulies*, etc. Lift Irrigation by electric power is carried on at Moovattupuzha on a very limited scale. Oil Mills, Saw Mills and Match Factories also have an important place in the economic life of the town.

The civic affairs of the town are managed by a Municipality which was set up in 1958. The town has a Secondary Health Centre and a T.B. Clinic. There are three High Schools-two departmental and one private (Moovattupuzha St. Augustine's High School). The second Arts and Science College in the Moovattupuzha Taluk is the Nirmala College situated just a mile away from the Moovattupuzha Bus Stand. To cater to the reading habits of the public there are good reading rooms and libraries such as the Moovattupuzha Municipal Library and Reading Room and the Moovattupuzha Taluk Library and Reading Room.

Among the important offices in the town are the offices of the Executive Engineer (B & R), the District Educational Officer, the Tahsildar and the Sub-Registrar. Courts such as the Munsiff's Court and the Additional First Class Magistrate's Court, the Sub-Jail and the Police Station are the other Government institutions in the town.

Serving the needs of the travelling public are a few hotels situated in the heart of the town as well as the P.W.D. Campshed, provided with four suites of well-furnished rooms. An approach road has long ago been laid in front of this Campshed which is only a furlong away from the Municipal Bus Stand.

The chief banks in the town are the State Bank of Travancore, the Canara Bank Ltd. and the Federal Bank Ltd.

Mulanthuruthi (Kanayannur Taluk), (9° 50′ North Latitude and 76° 20′ East Longitude)

Eleven miles to the south-east of Ernakulam town Mulanthuruthi is a railway station on the Trivandrum-Ernakulam railway. The name 'Mulanthuruthi' is supposed to have

been derived from the fact that bamboo (Mula) used to grow wild in the area in olden times. The place was even used as a regular game area by the old rulers of Cochin. The place is one of the chief centres of the Orthodox Syrian Christians in this District. The Orthodox Syrian church here, believed to have been founded 700 years ago, contains beautiful fresco paintings by foreign artists. It was here that the Patriarch of Antioch held a Synod in 1874 to settle the differences between the Jacobites and St. Thomas Syrians. Mulanthuruthi has a Government High School and a Government Dispensary. Workable deposits of china clay are found here. Rural water supply schemes under the Five Year Plans are being implemented. Mulanthuruthi has a Police Out-post and Sub-Registry Office.

Neriamangalam (Moovattupuzha Taluk), (10° 00′ North Latitude and 76° 40′ East Longitude)

Situated about twenty miles east of Moovattupuzha town the village of Neriamangalam presents varied scenes of exquisite beauty, nestling as it is, at the foot of the majestic and stern hills of the Western Ghats. To add to its charm, the Periyar river traverses its zigzag course through this fertile valley. The river front is very convenient for bathing purposes. Here and there are the scattered homesteads buried in the midst of groves and fruit trees. All the year round, the place enjoys copious rainfal, the average rainfall here being 5,883.5 mm. (231.63") per annum. In the Census of 1951 the highest rainfall in the erstwhile Travancore-Cochin State wes recorded as occurring in Neriamangalam. All this has made Neriamangalam an important centre of attraction to tourists in the District.

Until the opening of Moovattupuzha-Munnar road which passes through this village, Neriamangalam was handicapped by lack of communication facilties and for a long time, it remained a neglected hamlet. Inspite of its long isolation it had grown and developed of its own and there is evidence to believe that it was a populous place and the seat of some royal power in ancient times. There is a mountain pass here which links the District with the Coimbatore District in Madras State. At Mannankandom, about ten miles from here, there are ruins of some antiquated irrigation works.

The Neriamangalam bridge across the Periyar, a beautiful specimen of bridge construction, was constructed in 1935 and this has provided direct outlet for the produce of the High Ranges to the Cochin Harbour.

A mile and half to the east of the Neriamangalam bridge there are two temples, one dedicated to Sastha and the other to Bhagavathi. The latter is worshipped by the local people as Madurai Meenakshi. Both these temples were reclaimed from dense forests about two decades ago. They are under the control of the Travancore Devaswom Board.

The Travellers' Bungalow at Neriamanglam provides comfortable accommodation to tourists. There is a Police Out-post here.

Onakkur (Moovattupuzha Taluk)

Situated about 8 miles away from Piravam Road Railway Station, Onakkur is famous after its Bhagavathi temple. According to tradition it was from here that Kakkasseri Bhattathiri taught philosophy and allied subjects to his disciples Kizhuppurathu Bhattathiri and others. The Onakkur temple has some fine wood carvings. A peculiar feature of the festival of this temple is that *Arat* is performed twice a day during *Utsavam* days. The Aruvikkalpara waterfall which is about 100 feet high is also situated in this village, one mile east form the point of the 7th mile from the Moovattupuzha-Piravam Road.

Pallippuram (Cochin Taluk), (10° 45' North Latitude and 76° 10' East Longitude)

Pallippuram, otherwise known as Palliport in olden times, is six miles form Parur. It is situated in the northern extremity of the island of Vaipin. Pallippuram comes under the Vaipin N.E.S. Block. The Portuguese built a small fort here in 1503 as an outpost. It is an octagonal fort and is one of the protected monuments of the District. It was known at the time of its construction and subsequently by the name of *Azhikotta* or *Ayakotta*. The Portuguese also built here a college for the instruction of Christian youth. The Dutch captured the fort in 1661 and converted the college building at Pallippuram into a leper asylum. This leper asylum was functioning till the thirties of this century. In 1789 the Dutch sold the Portuguese fort along

with the Cranganore fort to Travancore for a sum of 3 lakhs of Rupees. The fort is even today in a fair state of preservation and constitutes the oldest existing European monument in India.

In olden times a savage form of punishment called water ordeal had to be gone through by certain categories of criminals in Cochin State. The accused would be made to swim or wade across the canal at Pallippuram which was full of crocodiles, and if he escaped unhurt by these creatures, he was declared innocent. The Catholic Church at Pallippuram is an important one and the *Perunnal* here attracts huge crowds. The Gowda Saraswath Brahmins have a temple at the place. The main deity of the temple is Lakshminarayana, but there are also images of Sitarama, Balakrishna and Hanuman. A Government Ayurvedic Hospital is functioning at Pallippuram.

Palluruthi (Cochin Taluk), (9° 55′ North Latitude and 76° 15′ East Longitude)

Palluruthi, the headquarters of the Palluruthi N.E.S. Block, is a growing industrial centre. An Industrial Estate in which several industrial units are located is functiong here. They are engaged in the manufacture of wooden doors, windows and furniture, stainless steel, aluminium and metal products, barbed wire and stay wire in all sizes, paper etc. The major industrial concerns in Palluruthi are Tata-Fison Ltd., the Giovanola-Binny Ltd., and Anand Water Meter Manufacturing Co., Ltd. In addition, there are a number of oil mills and saw mills here. Coir manufacturing is also an important local industry. Palluruthi has also a Tin factory.

There are a few important temples in Palluruthi. The Azhakiakavu is a Bhagavathi temple and the *Thalappoli* here which falls in Makaram (January-February) is an important local festival. The Gowda Saraswath Brahmins have a temple of their own at the place, viz., the Pathum Thirumala Devaswom.

Palluruthi has a Government Hospital and a T.B.Clinic. In addition to a Training School, there are three High Schools here run by private agencies.

Parur (Parur Taluk), (10° 05′ North Latitude and 75° 10′ East Longitude)

The headquarters of the Parur Taluk and Parur N.E.S. Block, Parur town has an area of 3.52 sq. miles and a population of 20,852 (10,136 males and 10,716 females) according to the Census of 1961. It is an ancient place of historical importance. Situated on the northern bank of the Vembanad Lake, it is ten miles from Alwaye. Parur was formerly the seat of the Parur Rajas, the principality being known as 'Pindinivattam'. The Parur Rajas were the feudatories of the Rajas of Cochin till the latter ceded the town to Travancore in 1764. Parur was a scene of fighting during the latter part of the 18th century. The forces of Tipu Sultan are said to have destroyed temples and churches in the town. Remains of some earthern fortifications, especially of the Parur Raja, constructed in those times are still seen near the town.

Among the churches in Parur the Kottakavu Church dedicated to St. Thomas is an old one. It is said to have been originally a Hindu temple surrounded by a grove and a solid wall. Hence the name *Kottakavu*, literally a fortified temple. St. Thomas, the Apostle, is said to have visited the place and converted several Brahmin families who lived around this temple. Subsequently, this temple became a Christian place of worship. A few granite monuments are preserved in the Kottakavu Church. Bishop Roz is buried in the sanctuary of the existing old church, situated just behind the new church. Another important church in the town is the Jacobite Syrian Church. Temples dedicated to Goddess Saraswati are rarely seen in Kerala. But Parur has a temple dedicated to Saraswathi, locally called *Mookambi*. The idol of Saraswathi is very captivating, the Goddess standing on the full-bloomed lotus surrounded by water. Besides, there are the Kannankulangara Sree Krishna temple and the Peruvaram Siva temple. The Sri. Venkatachalapathi Devaswom, Parur, is owned by the Gowda Saraswath Brahmins. This temple which was destroyed by Tipu Sultan in 1790 was renovated in 1888 by the community with the help of Sri Mulam Thirunal, the Maharaja of Travancore. The *Samooham Madhoms* of the Tamil Brahmins in Parur are very ancient institutions.

There is a Jewish Synagogue at Parur which contains a Hebrew inscription which records in verse the year (1615)

in which the Synagogue was built and the name of the Jew, one David Castile, at whose behest it was built.

The civic affairs of the town are managed by a Municipality which was set up in 1913. Parur has two Government High Schools and two private High Schools, viz., Samooham High School and St. Aloysius High School. The important public offices are the Taluk Office, the Sub-Treasury, the Sub-Registry Office, the Additional District Court, Munsiff's Court, Magistrate's Court, Municipal Office, Telephone Exchange and Police Station. The Parur P.W.D. Rest House is provided with two double rooms, but no catering is provided here. The important medical institutions in Parur are the Government Hospital, the Veterinary Hospital, the Government Ayurvedic Dispensary and a grant-in-aid Ayurvedic Dispensary.

Cotton weaving, oil pressing and coir manufacture constitute the small-scale industries of the town. The important banks in Parur are the State Bank of Travancore, Parur Central Bank Ltd., the South Indian Bank Ltd., and the Catholic Union Bank Ltd.

The source of good drinking water for the Parur town is the nine wells maintained by the Municipality. At Vedimara is situated the burial and cremation ground owned by the Municipality. The Municipality also runs a public market comprising a vegetable and fish market. The Municipal Park with its Radio kiosk is a place of resort to the public in the evening.

Periyar Valley Project Site (Moovattupuzha Taluk)

Under the Periyar Valley Irrigation scheme a 692 ft. barrage has been constructed at Planchode near Bhoothathankettu, six miles north of Kothamangalam. A 22' roadway is laid over the barrage. The area around this barrage has become an important tourist spot in the District. On the opposite bank of the river there is a Reserve Forest and wild animals can be seen roaming about in their natural habitats. A small garden has been laid out at both ends of the barrage. There are ample facilities for fishing and boating. The Rest House with two suites of rooms at the barrage site caters to the needs of the tourists.

Perumbavur (Kunnathunad Taluk), (10° 05' North Latitude and 76° 25' East Longitude)

Headquarters of the Kunnathunad Taluk, Perumbavur is a municipal town with an area of 5.25 sq. miles and a

population of 16,147 (8,353 males and 7,794 females) (Census 1961). It is a major clearing house for country produce. The Travancore Rayons Ltd., one of the premier institutions of the town, is situated at Rayonpuram on the banks of the Periyar river. First in the field to be set up in the country, it started production in 1950. Its products such as rayon yarn, cellophine paper, etc., are sold in different parts of India. The Vanchinad Match Works, Perumbavur, utilises soft wood from the local forests. The making of splints and veneers is carried on as a cottage industry in the neighbourhood of the factory. Saw mills and furniture-making are also important industries of the place. A cattle market is being held in the town every Tuesday.

There is a Bhagavathi temple at a place called Iringole, almost a jungle and wild monkeys can be seen prowling about. There are two old Vishnu temples in this locality which are owned by private trustees. One is located at Chelamattam 2½ miles north-west of Perumbavur and the other at Okkal, 3 miles north of the place. It is also believed that a fort was built by Tipu near the temple in Chelamattam. The remains of the fort are seen in this place. There is a temple at Cheranellur which is famous for its *Thaipooya Mahotsavam* in Makaram (January). Being a small village in the suburb of Perumbavur, the people from the various parts of the Taluk attend the *Mahotsavam*. At Mudikkal, about a mile west on the way to Alwaye, there is an old mosque. It is said that the Mudikkal region was occupied by Tipu's forces in the course of his invasion of Kerala and that most of the local inhabitants were converted to Islam. There is a famous Roman Catholic Church at Vallom. It contains some good mural paintings representing biblical stories.

The only Junior Technical School in the Ernakulam District is located at Koovappadi near Perumbavur. Besides, there are three High Schools in the town. Being the Taluk Headquarters, Perumbavur has a Government Hospital and a Government Ayurvedic Hospital. The Travancore Rayons maintains the Chidambaram Chettiar Memorial Hospital for its employees at Rayonpuram. A Veterinary Hospital is also functioning here. Among the public offices in the town are the Taluk Office, the Office of the Executive Engineer, Periyar Valley Irrigation Project, the Electrical Sub-Station, the Munsiff's Court,

the Sub-Magistrate's Court, the Police Station, the Sub-Registry Office and the Public Call Office. The chief banks are the State Bank of Travancore, the Indian Overseas Bank and the Perumbavur Bank Ltd. A leading voluntary organisation in the town is the Y.M.C.A. which has a building of its own built in 1963.

The civic affairs are managed by the Perumbavur Municipality which maintains, among other things, a library and reading room, a club and a Radio kiosk. Acute scarcity of drinking water is felt during every summer when the Municipality distributes a limited quantity of water to the people in lorries.

A scheme to supply safe drinking water to the people of the town at an estimated cost of Rs. 7 lakhs is to be commissioned before the end of the Third Plan period.

The Public Works Department Campshed in Perumbavur provides comfortable accommodation to the travelling public.

Piravam (Moovattupuzha Taluk), (9° 50′ North Latitude and 76° 30′ East Longitude)

About fifteen miles west of Kuthattukulam, Piravam town is on the banks of the Moovattupuzha river. According to the Census of 1961 it has a population of 6,604 (3,267 males and 3,337 females). The town extends to an area of 2,041 acres. This place forms part of Pampakuda N.E.S. Block. Piravam is an important centre of the Orthodox Syrian Christians. The old St. Mary's Church at Piravam is one of the most important Orthodox Syrian churches in Kerala. According to a tradition prevalent in the place it was founded by the *Kusa Rajas* of Piravam identified with the wise men from the East who proceeded to Bethlehem on receipt of indications of the birth of Jesus Christ. But this tradition has no basis in fact. The church at Piravam is not included even among the seven churches originally established by St. Thomas who is believed to have come to Kerala in 52 A.D. According to another version the church is only about 4 centuries old. There are some interesting sculptures and mural paintings in the church which are believed to have been executed in Persia or Syria and brought to the place. The festival here attracts large crowds. Every year more than ten thousand pilgrims trek from far and near

to make their long cherished offerings at the church. An offering symbolic of the 'Last Supper' of Jesus Christ is a special ceremony performed here. During this festival season vast crowds, irrespective of religion, assemble at the place. An equally important church at Piravam is the Roman Catholic Church erected in 1821. Altogether there are eleven churches and eight temples in Piravam. The Siva temple of Pazhur washed by the Moovattupuzha river on three sides is the most famous temple of the place. The minor deities installed here are Krishna and Ayyappan. The temple has some of the most exquisite wood carvings of Kerala. A Bhagavathi temple called Pishari Kovil is located near the St. Mary's Church separated only by a wall. The famous "Pazhur Padippura", the abode of the noted Pazhur Kaniyan (Astrologer), is situated in the Kakkad Kara of Piravam village.

Under the Third Five Year Plan a protected water supply scheme is to be started here. For the convenient stay of travellers and Government servants on tour Piravam has a comfortable Campshed. A bridge 368′ long and built at a cost of Rs. 6 lakhs spans the Moovattupuzha river at Piravam.

Lime burning, soap-making, oil pressing and timber work are the main industries in the place. Piravam has a Police Out-post.

Thodupuzha (Thodupuzha Taluk), (9° 50′ North Latitude and 76° 40′ East Longitude)

Thodupuzha, situated on the banks of the river of the same name, is the headquarters of the Thodupuzha Taluk. The place is noted for its old temples and historic ruins. Karikode which is about a mile east of the town contains the relics of an old fort which was built by the Vadakkumkur Rajas who had their capital at the place. Very near to the ruins of the fort is situated an old Bhagavathi temple which is believed to have been founded by one of the Vadakkumkur Rajas. According to tradition this Raja could not go to Cranganore to offer regular annual worship at the Bhagavathi temple there in his old age and therefore he built a Bhagavathi temple in his own place for offering daily worship. In the vicinity of this Bhagavathi temple is the interesting Annamalai temple dedicated to Siva. This temple has been built in the Chola style of architecture. It

is now almost in a ruined state, with a host of stone and bronze images of Ganapathi, Subramonia, Parvathi, Vishnu, etc., and *puja* utensils lying there. A lamp is lit in the temple at sun-set every day by a Pandaram who lives nearby. The Annamalai temple is the property of the Vellala community living at Kudayathur. There is an interesting story as to how this temple came to be built at Karikode. The Vellalas who came to the place were denied the right of worship in the local Bhagavathi temple as the local people considered them as belonging to an inferior caste. Consequently, the Vellalas built a temple of their own, viz., the Annamalai temple and never mixed with the local populace. The story also goes that one of the Vellalas had a beautiful daughter whom the local Raja wanted to marry. The immigrants refused to agree to the proposed matrimonial alliance as the humiliation to which they were subjected was still fresh in their memory. The disgruntled Raja, thereupon, harassed the Vellalas in all possible ways. In the end almost all the members of the Vellala community left for the Tamil country. Those who remained behind may still be seen at Kudayattur and they claim the Annamalai temple as their own.

In addition to the two temples mentioned above, there are several other temples at Thodupuzha. On the banks of the Thodupuzha river is situated one of the most famous Krishna temples of Kerala. A Siva temple is also located at nearby Kanjiramattam. The Mudaliar Madhom, about a mile east to the town, is also the seat of a Siva and Krishna temple each. At Poravappara, which is two miles south-east of Thodupuzha, there is a huge rock. At the top of this rock there is an old temple dedicated to Subramonia. The foot-prints on the top of the rock are ascribed by local tradition to Bheema.

Thodupuzha has also its own churches and a mosque. At Chungom two miles south of Thodupuzha, on the Palai-Thodupuzha road, is situated a Roman Catholic Church (St. Marys Church). At Mudalakodam there is another Catholic church built before the 13th century A.D. There is an Orthodox Syrian Church at Kothaikunnu. Another notable religious institution in Thodupuzha is the Nainar Mosque. It is situated at Karikode within a few yards of the Bhagavathi temple, and is believed to have been built in the same year in which the temple was founded. Perhaps,

it was built for the benefit of the Muslim soldiers who served in the army of the Vadakkumkur Rajas. The existence of the temple and the mosque in close proximity to each other testifies to the existence of communal harmony among the people.

An important trading centre, Thodupuzha has always been a market for hill produces such as pepper, ginger, rubber, coffee, cardamom, lemon-grass oil etc. On the market days on Wednesday and Sunday the Thodupuzha bazaar, the chief commercial and trading centre in the Taluk, turns into a beehive of activity with people and wares everywhere. Plantain fruits, vegetables and fishes, especially prawn, sardine, cod, etc., are the chief commodities brought here for sale.

In addition to the Taluk Office, the Munsiff's Court, the Sub-Magistrate's Court, a Police Station, a Sub-Registry Office and a Public Call Office are situated here. Thodupuzha is also the headquarters of the Thodupuzha N.E.S. Block. The Canara Bank Ltd., and the State Bank of Travancore are the banks functioning here. A good number of oil mills can be found in Thodupuzha. Distillation of lemon-grass oil is an important cottage industry here. The P.W.D. Traveller's Bungalow is situated in the heart of the town. The bridge over the Thodupuzha river was opened in 1962. A Junior College, viz., the Newman College offering instruction in the Pre-Degree Course has been set up at Thodupuzha in 1964-65. A Government Hospital, a Government High School and a Private School, viz., St. Sebastian's High School are functioning here. A scheme has been taken up by the Public Health Engineering Department to supply protected water to Thodupuzha. Thodupuzha is the headquarters of the Dhanwanthari Vaidyasala which has got its branches in several parts of South India.

Thrikkakara (Kanayannur Taluk), (10° 00′ North Latitude and 76°15′ East Longitude)

Situated about two miles and a half south-east of Edappilli railway station and a mile and six furlongs to the east of the National Highway 47, Thrikkakara is well known throughout Kerala as the seat of an ancient Vishnu temple. It is one of the thirteen holy places of Kerala held sacred by the Sri Vaishanavas and the Vishnu temple here is resorted to by pious pilgrims from all over the State and



ANNAMALAI TEMPLE, KARIKODE, THODUPUZHA



BRONZE IMAGE OF PARVATHI KEPT IN ANNAMALAI TEMPLE,
KARIKODE THODUPUZHA

outside. A special feature of the image at the temple is that it is in the form of Vamana, Vishnu's incarnation. This is perhaps the only temple in Kerala where Vamana is the presiding deity. Therefore, Thrikkakara is also called 'Vamanakshetram'. In addition, there are also separate shrines dedicated to Bhagavathi, Sastha and Gopalakrishna inside this temple. During the Onam season the courtyard of every Hindu home in Kerala is swept clean and the centre of it is well rammed with cowdung and a conical structure in clay is raised here by young maidens who decorate it with multi-coloured flowers. This structure is symbolically worshipped as Thrikkakara Appan. [1]

In days gone by the prominent princes and chieftains of Kerala used to assemble at Thrikkakara to celebrate the Onam festival. Each of the chiefs present seems to have had a duty assigned to him. The place where the Zamorin of Calicut used to take his station is still pointed out. The Raja of Edappilli officiated as the priest and the memory of this custom lingered for a long time in the right of the Raja of Edappilli to nominate the person who performs *puja* in the temple. Another interesting survival of the ancient assembly of the Kerala Princes at Thrikkakara is the ceremony of *Athachamayam* celebrated till recent times with all royal fanfare by the Zamorins of Calicut and the Maharajas of Cochin on the day of *Atham* asterism in the month of Chingam (August-September). On this day the Maharaja of Cochin used to go in a grand procession along the streets of Thrippunithura and the Zamorin in the capital of his principality. These processions were conducted to commemorate the annual trek of these rulers to the temple at Thrikkakara.

The Thrikkakara temple has a large number of lithic records, some of them of great historical importance. The Travancore Archaeological Department has published the most valuable among them. Several of the records belong to the period of Indu Kotha Varma (944-962). In addition to the main Vishnu temple, there is also a Siva temple nearby, almost in the same premises. This temple contains shrines dedicated to Sri Parvathi, Durga Bhagavathi, Subramonia and Ganapathi.

[1] For details of the celebration of Onam festival at Thrikkakara see Chapters II and III

At a place two miles east of the Thrikkakara temples, viz., in the Thrikkakara South Village, there is an underground passage called *Mudikuzhi*. According to local tradition the Pandavas made good their escape through this passage when the lac palace (*Arakkillam*) was set on fire.

Thrikkakara has made fast progress in recent times. It is the seat of the proposed University Centre at Ernakulam. It has also been chosen as the site for the construction of 100 residential quarters for Non-Gazetted Officers. Two Government Dispensaries, one Allopathic and another Ayurvedic, are functioning in the village. The Rs. 27 lakh Dairy Project under the Ernakulam Milk Supply scheme is being set up at Thrikkakara North Village. It is proposed to develop the place as an independent Township.

Thrikkariyur (Moovattupuzha Taluk)

A village nine miles from Moovattupuzha and two miles from Kothamangalam, Thrikkariyur is a place of political and religious importance. The remains of an old temple and also of some old buildings are found here. Some scholars have even sought to identify the place with Vanchi, the original capital of the first Chera Empire[1]. Of the four temples in Thrikkariyur dedicated to Siva, Bhagavathi, Vishnu and Ayyappan, the most important is the Siva temple, now under the management of the Travancore Devaswom Board. This temple was renovated about half-a-century back when parts of its were gutted by fire. The Thrikkariyur Devaswom is running a High School here.

Thrippunithura (Kanayannur Taluk)

Seat of the former ruling family of Cochin, Thrippunithura lies six miles south-east of Ernakulam. It is an important railway station on the Trivandrum-Ernakulam railway line. The 1961 Census recorded a population of 14,444 for this place of whom 7,007 were males and 7,437 were females.

A place rich in tradition and history, Thrippunithura has often been identified with 'Tropina' of Megasthenes, a flourishing sea-port in olden days. It might have become an inland town owing to accretions on several occasions. The place has also been identified with the Pounata of Ptolemy.

1 See Chapter II for details.

As for the origin of the name of the place, it is suggested that 'Tiru' means 'Sree' or Lakshmi and 'Pun' or Pandavan means husband in Tamil. This would make Thrippunithura the abode of Lord Vishnu, which is what it is. The change from Punithura Esan to Purnathryeesan is easily understandable.

Reminiscent of the past royal glory are the many forts and palaces in the town and its suburbs but the most important of them all is the Hill Palace where the Cochin Maharajas lived. It is situated amidst picturesque surroundings about a mile and a half to the east of Thrippunithura. But the chief attraction of the place continues to be the Sri Purnathrayeesa temple dedicated to Lord Vishnu, the tutelary deity of the royal family of Cochin. The idol of the Sri Purnathrayeesa temple is said to have been installed by Arjuna to whom it was given by Sri Krishna on their return from Vaikunta with the lost children of the Brahmin devotee immortalised in the well-known puranic story *Santhanagopalam*. The image is in a sitting posture which is very rare. Devout couples desirous of progeny find worship in the temple here efficacious. There are three festivals every year each lasting for eight days, but the most important is the one which falls in November-December and draws a large number of spectators. During the festival days the idol is taken out in an impressive procession on a beautifully caparisoned elephant to the accompaniment of a harmony of different musical instruments. Elephants, of course, form the core of the procession. The people are also entertained to the display of the various folk arts of Kerala. The temple, especially the *Sreekovil*, is a fine structure. In an unfortunate incident in 1920 the original shrine was destroyed by fire and the present temple is the one built in its place. The Palaces of the members of the Cochin Royal house adjoin the temple. The most important of these is the palace known as *Kalikkotta*, a grand and massive building built by the Dutch after their own style of architecture.

A fabulous and colourful ceremony with which Thrippunithura is associated is the *Athachamayam* which is celebrated in August. As the very name indicates, the ceremony falls on the day of *Atham* asterism, which comes on ten days prior to the asterism *Onam* or *Tiru Onam*. It signifies the commencement of Onam, the national festival of Kerala. In the days of royalty the celebration was

usually held in the Thrippunithura Palace. In the morning the Maharaja of Cochin went in procession round the place in a palanquin accompanied by his retinue, the members of the royal family, officers, etc. After the procession he held a durbar at the palace at which officers and chiefs received presents from the Maharaja. According to tradition the *Athachamayam* ceremony is indicative of the start usually made by the Cochin Raja in early days to attend the festival in the temple of Thrikkakara. The traditional festival became defunct with the disappearance of royalty. But it has been revived recently in a new form with the celebration of *Onam* as a national festival under State auspices. A fair is also held as part of the celebration.

Thrippunithura is the seat of a very ancient Syrian Catholic Church dedicated to St. Mary. The second Ayurveda College in the State run by the Government is located here. The Sanskrit College, the Radhalakshmi Vilasam Academy of Music and the Radhalakshmi Vilasam School of Fine Arts are also notable institutions of the place. Besides, there are four High Schools here of which three are Government institutions. The chief medical institutions are the R.V. Palace Dispensary and the M.C.H. Centre. In the not distant future Thrippunithura would get her place of honour in the industrial map of the District with the establishment of the Traco-Cable Co., Ltd. and the Oil Refinery nearby. There are two Police Stations in Thrippunithura—the Thrippunithura Cusba and the Hill Palace Police Station. A Sub-Registry office is functioning here.

Udayamperur (Kanayannur Taluk)

Udayamperur (Diamper) situated on the Ernakulam-Vaikom road is a place of historical importance. It has been identified with Ptolemy's "Udamperora". The place has a famous Siva temple which contains two lithic records one of which is that of the Chera Emperor, Goda Ravi Varma (917-944). The local Roman Catholic church (Estd. 510 A.D.) was the venue of the Synod of Diamper held by Archbishop Alex de Menezes in 1599 "to cure the Syrian Christians of their Nestorian heresy and to bring them under the sway of the papacy in Rome". But the church is now under the Archbishop of Ernakulam who follows the Syro-Malabar rite. Some old inscriptions in stone are preserved in the church. It has also some interesting wood carvings. The mortal remains of the last Raja of Villarvattam who

embraced Christianity are preserved in this church. The historical granite Cross at which four priests can simultaneously celebrate Holy Mass is a monument of great attraction to visitors. During the fighting between Travancore and Cochin in the eighteenth century divisions of Travancore troops under Prince Rama Varma advanced up to Udayamperur.

Udayamperur has a private High School and a Police Out-post.

Vaipin Island (Cochin Taluk), (9° 55′ North Latitude and 76° 10′ East Longitude)

The Vaipin Island lies between the backwaters on the east and the Arabian Sea on the west and the Cranganore and the Cochin bars on the north and the south. Isolated for centuries from the mainland it is now connected with Parur by the Cherai bridge opened in September 1960. In this island are located such places as Azhikal, Ochanthuruthu, Malippuram, Elangunnapuzha, Njarakkal, Nayarambalam, Edavanakkad, Kuzhippilli, Ayyampilli, Cherai and Pallippuram. Of these Njarakkal is a non-municipal town which according to the 1961 Census has a population of 15,777 (7,702 males and 8,075 females). The island has a total area of 25 sq. miles and is noted for its abundant coconut cultivation.

The Vaipin Island was formed by the deposit of silt brought down by the rivers discharging into the backwater and the sea. The date of its appearance or more probably, of the peopling of the place, coincides with the commencement of the *Puduvaippu* (literally New Deposit) Era (A.D. 1341). According to tradition in 1341 A.D. the backwaters burst through the narrow sand banks which separated them from the sea at Cochin and made a new outlet. It was at this time that the island of Vaipin is said to have been thrown up. The alluvial soil of the island facilitates the luxuriant growth of coconut palms and when the monsoon breaks in torrent, the wet lands yield a bumper harvest. The safety of this long stretch of sandy soil, subject to constant fluctuations due to frequent accretions and erosions, has been a perpetual headache to civil engineers and administrative authorities. Over many years this natural backwater had been losing its soil during the monsoon period. A church, it was said, had been lost to the encroaching sea and lay buried several hundred yards

away from shore; the dismayed villagers gaze every year at their plots of land and coconut groves as they become undermined and are sucked away by the raging sea. In 1875 the sea had actually broken through the gap at a place called Cruz Milagre, a mile and a quarter north of the Harbour entrance.

The Vaipin Island has stood witness to and taken part in many a historical episode. During the 16th century the forces of the Zamorins of Calicut engaged those of the Cochin Raja in many fierce battles. A large part of the island was for a long time under Dutch occupation. Vaipin was also the scene of bitter fighting between the Portuguese and the Dutch. It was also the bone of contention between Travancore and Mysore in the 18th century. The walls of the Portuguese and afterwards the Dutch outpost of *Azhikotta* (Ayacotta) are still visible at Pallippuram in the northern extremity of the Island.

Malippuram which is about 6 miles from the southern extremity of the Island has been a sea-port in former times. A flagstaff and the central depot for the storage of salt have been located here. At Njarakkal lies the smooth water anchorage familiarly known as the Njarakkal mud bank or mud bay where ships lying in Cochin used to take refuge during the monsoon period before the deepening of the Cochin Harbour.

Vaipin Island contains some important temples and churches. The Subramonia temple (Elangunnapuzha), the Pattathankulangara Bhagavathi temple (Kuzhipilli), the Goureeswara temple dedicated to Subramonia (Cherai) and the Sree Varaha Kshetram(Cherai) owned by the Gowda Saraswath Brahmins are among the most important temples in the island. Of these the Elangunnapuzha temple is historically important. During one of the bitter fightings with the Zamorin, the Cochin Raja, seriously wounded, took refuge in the Elangunnapuzha temple *Sanketam*. He was accompanied by many Portuguese refugees who supported Cochin in the war with Calicut. Formerly, the Raja of Parur had supervision over this temple and its properties. When Parur was ceded to Travancore in 1762, Travancore claimed and for some years, exercised sovereignty over the temple and the adjacent lands. This formed a bone of contention between the independent States of Travancore and Cochin for many years. The dispute was finally settled only in 1882, when the arbitrator appointed by the Madras

Government decided the question of sovereignty in favour of Cochin and that of the right of management of the temple in favour of Travancore. In 1902, however, Travancore restored the management to the *Uralers*, who, themselves unable to manage it properly, made it over to Cochin in 1905. The annual festival conducted in this temple in Vrischigam (November-December) attracts huge crowds from nearby places. Another important temple in the island is the Veliyattaparambil temple at Njarakkal where trial by ordeal with red-hot iron or molten lead used to be held till the end of the 18th century. The island has a large Christian population and churches built in the days of the Portuguese and the Dutch may be seen all over. One of the oldest Romo-Syrian Churches in the State is at Njarakkal. Established in 1451, it is dedicated to St. Mary. The *Nercha* in Pallippuram church attracts enormous crowds.

The island of Vaipin has made notable progress in recent years. It is covered by the Vaipin N.E.S. Block. Coir is the main industry of the place. At Azhikal, one mile from the southern extremity of the island, is located the Island Sea Foods (Private) Ltd. Njarakkal, which is about five miles north of Azhikal, is an important fishing centre and a fish farm acclaimed to be one of the most ideal estuarine fish farms in South East Asia is located here. It has an area of 4½ acres in four blocks, separated by bunds with sluice gates. A Government Industrial School is also located at Njarakkal. There is a Model Welfare Training Centre at Nayarambalam, in addition to a Basic Training School. Vaipin has a number of Primary Schools and High Schools run by both Government and private agencies. Njarakkal and Elangunnapuzha are seats of Government High Schools while there are private High Schools at Cherai, Njarakkal, Kuzhipilli, Edavanakad, Ochanthuruthu etc. There is a Police Station at Njarakkal. In addition there is a Police out-post at Malippuram. There are Sub-Registry Offices at Kuzhipilli and Njarakkal. There are Government Dispensaries at Ayyampilli, Malippuram and Edavanakad and a Primary Health Centre at Njarakkal. An Ayurveda Hospital functions at Pallippuram while there are Ayurvedic dispensaries at Edavanakkad, Nayarambalam and Elangunnapuzha.

The whole island measures about 15 miles in length. A visitor to the place is struck by the abundance of coconut palms which may be seen from one end of the island to the

other. An hour's journey by boat from Ernakulam will take one to Murukkampalam landing ghat at Vaipin.

Vallarpadam (Kanayannur Taluk), (9° 55' North Latitude and 76° 15' East Longitude)

Near Bolghatti and midway between Ernakulam and Vaipin, Vallarapadam is an island in the backwaters which is less than a square mile in area. It is a prominent place of Christian pilgrimage. The *Perunnals* here are held in June and September every year. Steamer service is run between this Island and Ernakulam by the Water Transport Section of the Kerala State Transport Department. The chief landmark in the island is an old church dedicated to St. Mary. Legend has it that St. Mary saved by her miraculous powers a Hindu lady, who had been drowned in the backwaters here. The St. Joseph's Lower Primary School and St. Mary's Upper Primary School are the educational institutions here. Manufacture of coir mats is undertaken by a private company in the island.

Varapuzha (Parur Taluk)

Anglicised as Verapoly, Varapuzha is only eight miles from Parur and is served by the Alangad N.E.S. Block. The place was the seat of the Carmelite Order of the Roman Catholic Church and it has come to acquire an importance of its own in the history of the Malabar Church. The Carmelite Church here dates from 1673. In 1682 the Carmelites founded here a Seminary for both Syrian and Latin clerics. Varapuzha was the scene of some fighting in the latter part of the 18th century in the campaigns with the Zamorin and the Sultan of Mysore. Many of the churches and monasteries, with their valuable records, were destroyed by Tipu Sultan. The priests of Varapuzha fled in panic, carrying with them some of the records which escaped the notice of the Mysorean adventurer, but they were unfortunately lost in the Periyar river while the priests were crossing it.

The St. Joseph's Convent Girls High School here is a private institution. In addition to this High School, there are a Government and four private lower Primary Schools here. A grant-in-aid Ayurvedic Dispensary is also functioning here. A variety of commodities such as rice, dried tapioca, fish, vegetables, khadi fabrics etc. are available

in the trading centre at Varapuzha. Manufacture of bricks and coir forms the chief village industry of the place. Varapuzha is one of the fourteen villages in the District to be benefited by the rural water supply scheme under the Third Five Year Plan. There is a Police Out-post here.

Passenger motor boats are frequently operating between Varapuzha and Ernakulam and it usually takes one hour and fifty minutes to reach the destination, the distance between the two places being eight miles.

Vellarapilli (Alwaye Taluk)

An enchanting hamlet with the Alwaye river surrounding it on its north east and south, Vellarapilli is situated six miles east of the Chowara railway station. It is famous as the birth place of Sakthan Tampuran who ruled Cochin State from 1790 to 1805. *Puthiyetam* is the name of the chief shrine of the place dedicated to Lord Krishna, and it is under the management of the Cochin Devaswom Board. There is also a Bhagavathi shrine nearby. An elaborate ceremony called *Thookkam* is an important offering to this deity. There are two important palaces (*Kovilakams*) in the village—the *Vadakkekovilakam* and the *Thekkekovilakam*—and it was in the latter that Sakthan Tampuran was born. The *Thekkekovilakam* is today a grimaced and deserted ruin and only the *Nalukettu* may be seen by a visitor to the place. For a long period Vellarapilli remained a favourite resort of the female members of the Cochin royal family.

The Syrian Catholic Church, Kanjur, established in 1001 A. D. is in this village. The annual festival here falls on January, 20 every year. It attracts thousands of devotees of St. Sebastian. The interior of the church is decorated with interesting paintings and stone sculptures. On its outer walls may be seen a large size painting depicting a battle scene in which the forces of the English East India Company and local soldiers met those of Tipu Sultan. An interesting oil lamp in bronze donated by Sakthan Tampuran is among the proud possessions of the church. It has on it the figure of an elephant with a mahout carved out beautifully.

Vellarapilli is served by the N.E.S. Block of Ankamali. The St. Sebastian's High School, the St. Jos Convent Girls High School and the Vimala Hospital are institutions of the place run by private agencies. The place has also a Police Out-post.

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GLOSSARY

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Adima	Slave or subject of a landlord
Anantharavan	The younger member of the matriarchal family (nephew in a matriarchal family), successor, heir
Anchal	Indigenous postal system
Archana	Offering of flowers and incense
Asan	Village School Master
Ashtamangalyam	The eight auspicious things arranged in connection with ceremonies
Ashta Vaidyans	The eight celebrated physicians of Kerala belonging to eight old families
Athachamayam	The annual celebration at Trippunithura marking the commencement of the Onam festival
Attiperu	Transfer of *Janmi's* rights by sale
Ayacut	Old land revenue record
Balasamajam	Children's Club
Bhakti	Devotion
Bhandaram	Treasury
Bharatha Natyam	The dance believed to have been inaugurated by Bharata
Bhasma	Holy ashes
Bimbam	Idol
Cheriya	Subordinate, Junior, Small
Chira	Tank or embankment
Chitti	An indigenous credit institution
Deepastambham	Light house
Desam	Territorial division, place, locality
Desavazhi	A local chieftain
Devaswom	Property belonging to a temple
Dewan	Chief Minister of an erstwhile Indian State
Dukha Velliazhcha	Friday of Sorrow. Good Friday
Edangazhi	A grain and liquid measure
Edavaka	Freehold estate of certain aristocratic families
Elayaraja	Prince, Junior Raja, Heir-apparent
Elaya tavazhi	Younger branch of the family
Firka	A unit of revenue administration
Garbhagriha	The Sri *Koil* or inner sanctuary of a temple where the image of God is placed
Gopuram	Tower (especially of a temple)
Gramam	A Village
Grandhasala Sangham	Library Association
Grandhavari	Chronicles
Guru	Religious preceptor, teacher
Haj	Pilgrimage to Mecca
Harikatha	Naration of puranic stories relating to Vishnu
Hukum-nama	Decree

Illam	House of a Nambudiri or Malayala Brahmin
Jatha	Procession
Jamath	Friday Mosque
Janmi	Landlord
Kacham	Agreement
Kaikottikali	A kind of dancing and singing with clapping of hands
Kalappa	Plough
Kalasamithi	Arts club
Kalari	Fencing school; Gymnasium
Kalyana Mandapam	Marriage Platform
Kammal	A kind of ear ring
Kammattom	Mint
Kanam	A system of land tenure according to which the tenant holds the land on payment of a fixed amount to the *Janmi* for a stipulated period
Kandezhuthu	A kind of revenue settlement
Kanji	Gruel of rice
Kara	The sub-division of a village
Karanavan	The eldest male member or head of a matriarchal family
Kathanars	Syrian priests
Kavadi	An offering of sandal, rose water etc. to Lord Subramonia, carried in pots over the shoulders of the vower, the pots being suspended from the ends of a pole well decorated with tapestry and peacock feathers
Kavyam	A poetical composition
Kettuzhuthu	A kind of revenue settlement
Kindi	A small vessel with a spout in the middle to hold water
Konam	Men's undercloth
Korava	Ululations made by women during marriage and other occasions of rejoicings
Koothambalam	A hall or shed where Koothu is performed in a temple
Koothu	Exposition of a religious story by a Chakiyar in a temple
Kovilakam	Palace
Kudiyan	A tenant (who holds land either from the Sirkar or from a *Janmi*)
Kuri	See Chitti
Kuttam	Local assembly
Madrasa	A school where Muslims religious educarion is imparted
Mahilasamaj	Women's Club
Makkathayam	Patrilineal system of inberitance
Mammatti	Spade
Marumakkathayam	Matrilineal system of inheritance
Maryada	Custom, manners
Mathaprasangam	Religious discourse
Maulavi	A Muslim priest
Methran	Bishop
Michavaram	The landlord's share of the crop
Moksha	Salvation
Misrabhojanam	Inter-dining

Mootha tavazhi	Elder branch of the family
Mullah	A Muslim priest
Mutt	Hindu Monastery
Musnad	Throne
Nadu	A smaller District
Nadumuttam	Inner yard of a *Nalukettu*
Naduvazhi	A local chief; a ruler
Nalukettu	A traditional Malayali house; a quadrangular building consisting of four blocks enclosing an inner court-yard
Narcha	Offering
Nikuthi	Tax
Nilam	Land—Usually wet land
Nivedyam	Offering
Nrithakalalayam	A dance school
Nuzzar	A present (made to a king)
Ola	Palm leaf
Onam	The national festival of Kerala occurring during the period August-September
Onapudava	The cloth presented in connection with Onam
Onnaramundu	Women's undercloth
Oonjal	Swing
Padippura	Gate house
Palliara	Royal bed chamber
Pandaravaka	Belonging to Government
Pandikasala	Warehouse
Panthukali (*Thalamakali*)	A kind of ball played in country side
Pan supari	Betel and arecanut
Pappadam	A kind of crisp thin cake made of flour (of rice and of black gram)
Para	A grain measure holding ten *Edangazhis*
Paramba	Garden land
Parvathyakaran	Chief Village Officer
Patasala	School
Pathivu	A system of budget fixing the allotment for State expenditure
Patta	Receipt—a document
Pattom	Rent
Pazhayakuru	Old sect of Christians
Peishkar	Formerly a District Collector
Poomukham	Portico
Pudava	Cloth worn by women
Puja	Offering of flowers etc. to a deity, worship
Punja	Single crop lands which lie submerged in water and are drained off and cultivated once in a year, also irrigated dry lands where paddy is cultivated
Puthankuru	New sect of Christians
Puthan	Gold coins once prevalent in Cochin State.

Prasadam	Sandal paste and flowers given to the worshippers in temples
Pravrithi	A unit of revenue administration
Sambandham	Marriage
Sanketham	Holy precincts of a temple considered invoilable
Sarvadhikaryakar	A Divisional Officer; Secretary to the Raja
Sarpakavu	Serpent grove
Sastri	A Hindu Pandit; Theologist; a person well versed in *Sastras*
Satram	Inn, Travellers' Bungalow
Sirkar	Government
Sradha	An oblation to the manes of the deceased ancestors
Sreekoil	*Sanctum sanctorum* of a temple
Tachu Sastra	The science of architecture
Tali	A neck ornament tied as a marriage badge
Tara	Tribal group of the Nairs
Tarawad	A family
Tavazhi	A branch of a matriarchal family descended from a female member
Thangal	Muslim religious leader
Tharisu	Waste land
Thatti	Screen
Thoda	A hollow cylindrical ear ring worn by women
Udakakriya	Funeral ceremonies
Uralar	Chief men of the locality, Trustees of the temple
Utsavam	Festival
Vaidyans	Ayurvedic Physicians
Valia Sarvadhikaryakar	Chief Minister
Vallom	Canoe
Vallomkali	Boat regatta
Vattezhuthu	A kind of archaic script
Vazhipadu	Offering to a Deity
Verumpattom	Simple Lease
Vidyarambham	Beginnnig of the study of alphabet
Vishu	Vernal Equinox occurring in Medam (April-May)
Yogam	Congregation, Assembly, Association
Zilla	District

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